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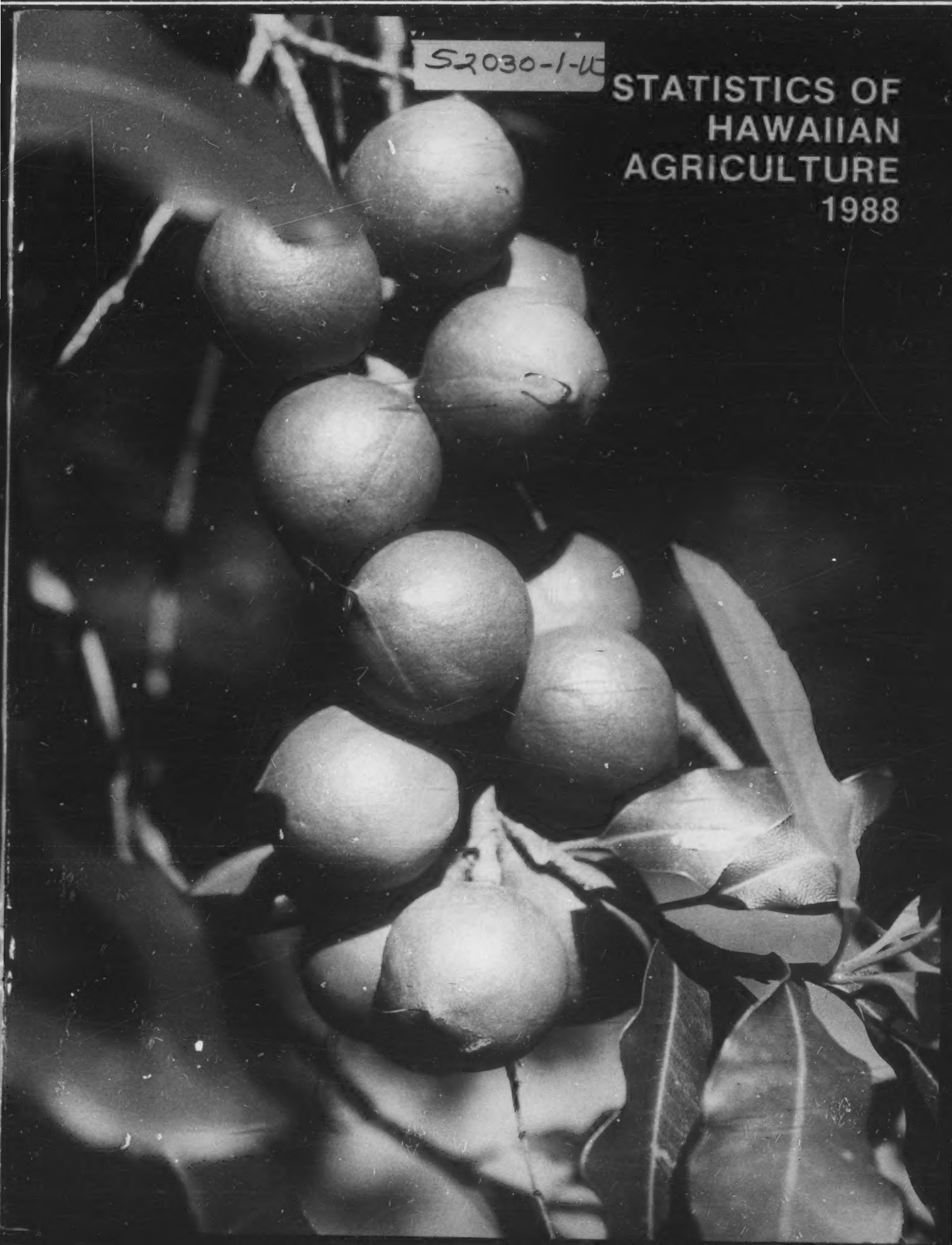
STATISTICS OF HAWAIIAN AGRICULTURE 1988



Cover: Macadamia nuts reaching maturity on the Island of Hawaii.

STATISTICS OF HAWAIIAN AGRICULTURE 1988

Prepared by
HAWAII AGRICULTURAL STATISTICS SERVICE
P.O. BOX 22159—Honolulu, Hawaii 96822
September 1989

A Cooperative Function of

Hawaii
Department of Agriculture
Marketing Division

United States
Department of Agriculture
National Agricultural Statistics Service

EXECUTIVE CHAMBERS

HONOLULU

JOHN WAIHEE
GOVERNOR

MESSAGE FROM GOVERNOR JOHN WAIHEE

As the decade of the eighties winds down, we can point with pride at the enormous strides Hawaii's farmers have taken. "Statistics of Hawaii Agriculture" provides graphic proof of their accomplishments during this period and more recently, 1988. This is an impressive feat when considering the natural plight of our farmers.

The future promises equally formidable challenges for the oldest of our industries. I am confident that Hawaii's agricultural industry will not only maintain but increase consistent production levels of food and other agricultural products. Let's support our farmers, our local products and an industry which keeps Hawaii green and beautiful. When these statistics increase, all of our lives are enriched.

John Waihee

JOHN WAIHEE

JOHN WAIHEE
GOVERNOR

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Hawaii agriculture had its third best year ever in 1988, ringing up farm level cash receipts of $574 million. The 3 percent gain from 1987 was accomplished despite a drop in sugar revenues and marks the first time ever that total receipts increased, while at the same time, the sugar value was dropping. Meanwhile, pineapple sales increased a healthy 8 percent for the year.

Diversified agriculture's value of production led the way by establishing a record high $257 million in returns to the State's producers. Both diversified crops and livestock contributed to the strong showing by this segment of our agricultural economy. Overall, livestock industry sales totaled $88.6 million, a record high. The leading diversified crop, macadamia nuts, generated a record $41 million to the State's producers, a gain of 14 percent from a year earlier.

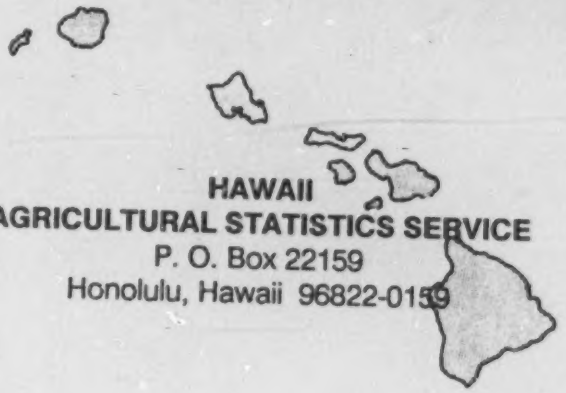
Macadamia nuts are being highlighted in this year's annual bulletin and I would like to extend my appreciation to the many macadamia producers and processors who responded to the surveys that made the statistics for this bulletin and special feature possible.

"Statistics of Hawaiian Agriculture" is published by the Hawaii Agricultural Statistics Service under a long-standing cooperative program between the Hawaii Department of Agriculture and the National Agricultural Statistics Service, U.S. Department of Agriculture. This publication is one of 180 reports published each year by the Hawaii Agricultural Statistics Service and is based on the voluntary reports of many Hawaii farmers and agribusiness firms.

Yukio Kitagawa
Chairperson, State Board of Agriculture

Hawaii
Department of Agriculture
Marketing Division

United States
Department of Agriculture
National Agricultural Statistics Service



HAWAII
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No agricultural estimating program could possibly succeed without the voluntary cooperation of the many farmers, ranchers, industry organizations and agribusinesses. This certainly holds true in Hawaii as evidenced by the excellent response provided by the State's agricultural community to our many data collection activities. Additional information has been provided by other State and Federal Agencies and their contributions are included throughout. Without the support of the aforementioned, this publication and the many reports published during the year would not be possible and for this we extend our thanks.

Much of the information contained in this bulletin was collected in personal interviews by our field staff. James Yamaki and Llewellyn Suzuki are responsible for the Big Island, Renan Mahikoa for Maui and Molokai, and Wendell Au and June Okamura for Oahu and Kauai. NASDA and State enumerators are also utilized for major data collection activities.

The entire staff of the Hawaii Agricultural Statistics Service was involved in preparing the estimates and articles for composition of this publication. My thanks to all for their dedication and perseverance:

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Reports published by this office are free to Hawaii's agricultural producers and other contributors. A nominal fee is charged others for printing and mailing costs. Please see page 99 for a list of reports, the frequency of publication and our office street and mailing addresses.

Sincerely,

Homer K. Rowley
State Agricultural Statistician

TABLE OF CONTENTS

HAWAII'S MACADAMIA NUT INDUSTRY...

PAGES -32-35

GENERAL

Agricultural Summary 4
Acreage in Crop and Total Farm Acreage 5
Cash Receipts of Agricultural Commodities . . . 13
Definition of Terms 97
Diversified Agriculture Ranking 13
Foreign Ownership of Agricultural Land 71
List of Publications 99
Major Agricultural Areas (Maps) 2-3
Sampling Methods and Estimation 98

CROPS

Summary and Rankings 14-15
Number of Farms 6
Value of Sales 10-11
Volume of Marketings 8

Field and Specialty Crops:
Coffee 31
Feed and Forage 30
Floriculture and Nursery Products 20-29
Ginger Root 30
Seed Corn 30
Sugarcane and Sugar 18-19

Fruits and Nuts:
Avocados 31
Bananas 40-41
Guavas 39
Macadamia Nuts 32-35
Oranges 38
Papayas 42-43
Passion Fruit 38
Pineapples 36
Tangerines 38

Vegetables and melons:
Beans, Snap 46
Cabbage, Chinese 47, 49, 67
Cabbage, Head 48-49
Celery 50
Sweet Corn 51
Cucumbers 52
Daikon 53, 67
Eggplant 54
Lettuces 55, 57
Onions, Dry 56-57
Onions, Green 58
Peppers, Green 59
Romaine 60
Squash, Italian 61
Sweetpotatoes 62
Taro 63
Tomatoes 64, 66
Watercress 67
Watermelons 65-66
Other vegetables 68-69

Market Supply:
Fruits 37
Melons 70
Vegetables 44-45

LIVESTOCK

Summary 72-73
Number of Farms 7
Value of Sales 12
Volume of Marketings 9

Cattle and Calves:
Commercial Slaughter and Farm Price 79-80
Inventory and Disposition 74-75, 80
Marketings:
Cattle and Calves 76
Feedlot Cattle 77
Range and Other Cattle 78

Hogs and Pigs:
Commercial Slaughter and Farm Price 86
Inventory and Disposition 84-86
Pig Crop, Production and Value 85

Poultry:
Broilers:
Feed Ratio 93
Placements 92
Slaughter and Value 93
Eggs:
Feed Ratio 92
Production and Value 91-92
Chickens:
Inventory 89
Placements 89
Slaughter and Value 90

Dairy:
Feed Ratio 82
Milk Cow Numbers, Production and Value . . . 82-83

Honey and Beeswax:
Production, Value and Price 83

Market Supply:
Beef and Veal 81
Eggs 88
Pork 81
Poultry Meat 87

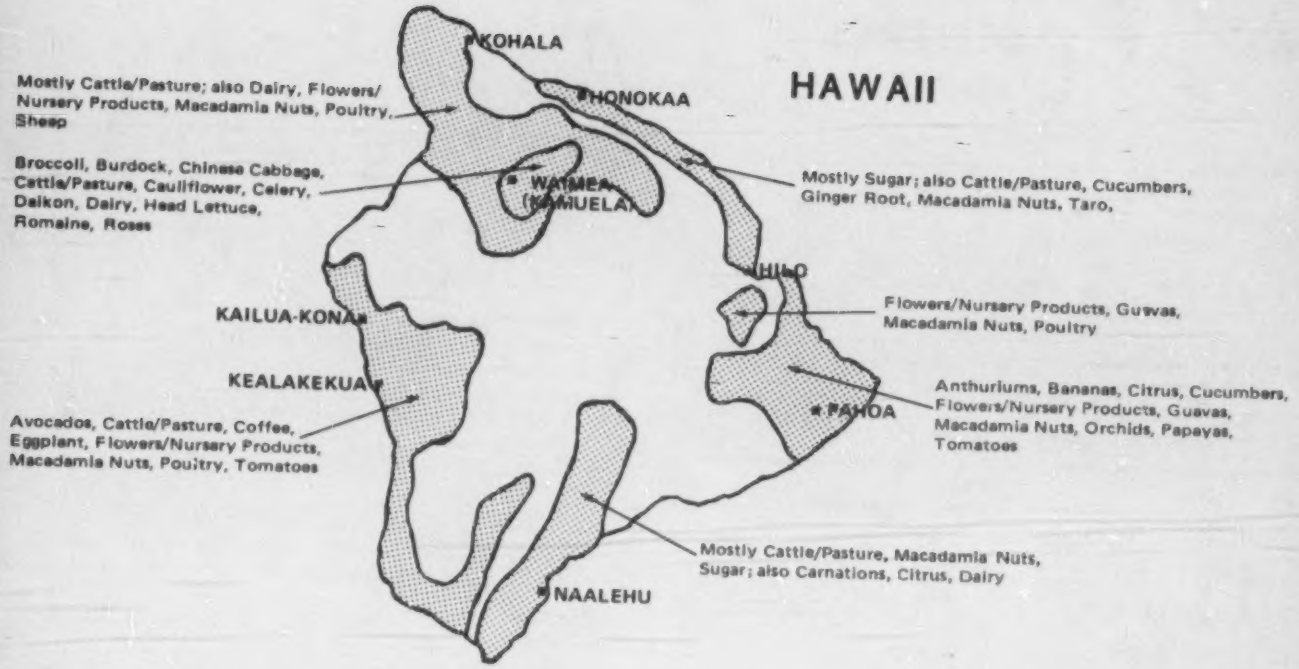
MISCELLANEOUS STATISTICS

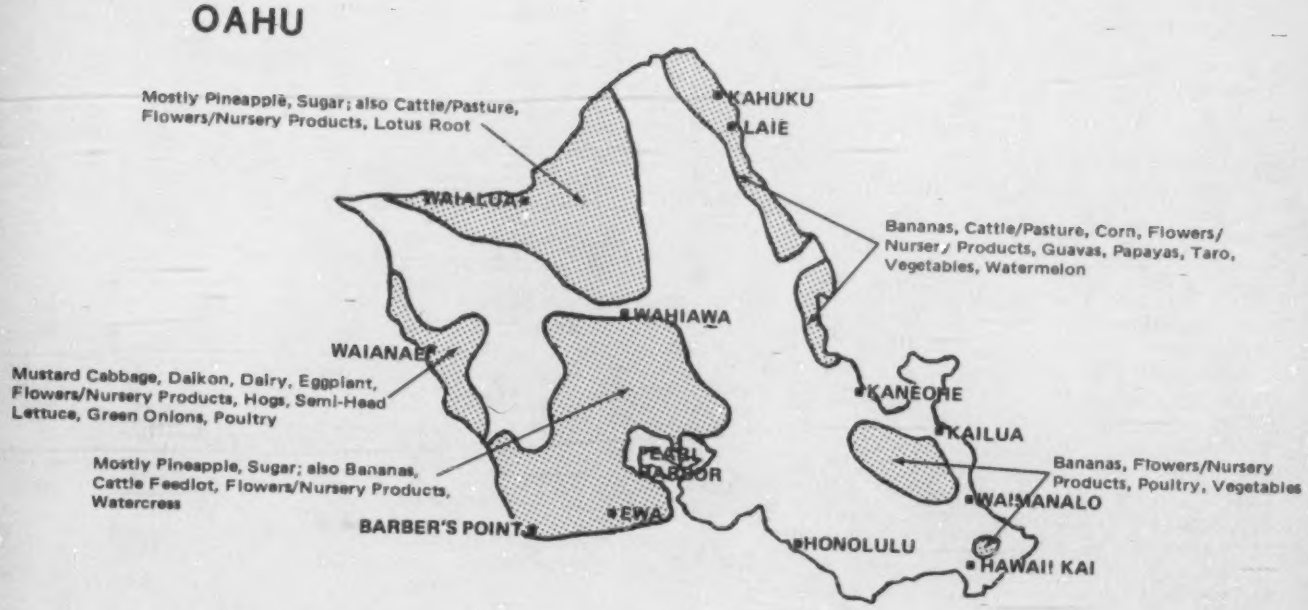
Feed Prices and Inshipments 94-95

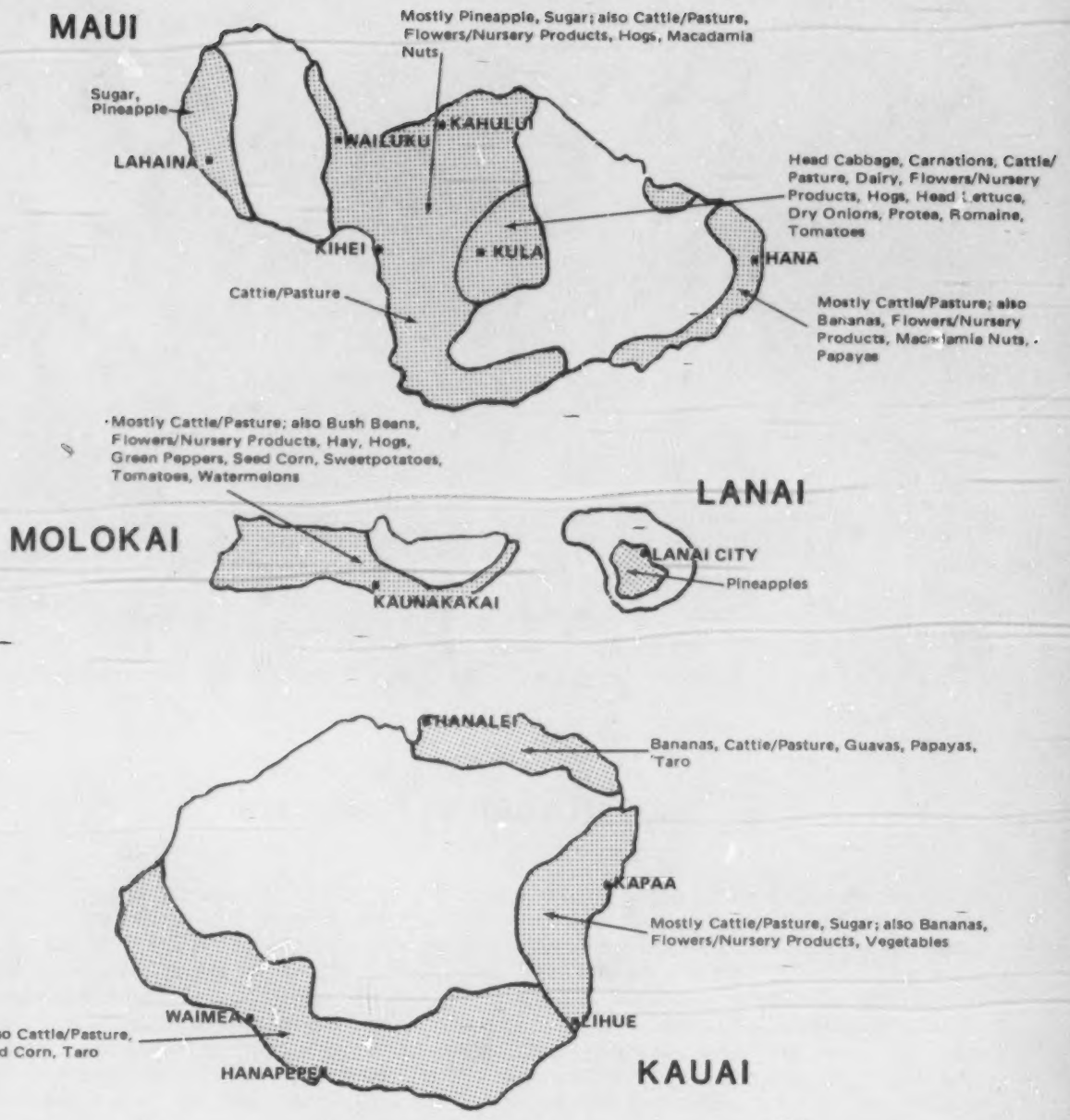
Agricultural Employment
Wage Rates 96
Workers on Farms 96

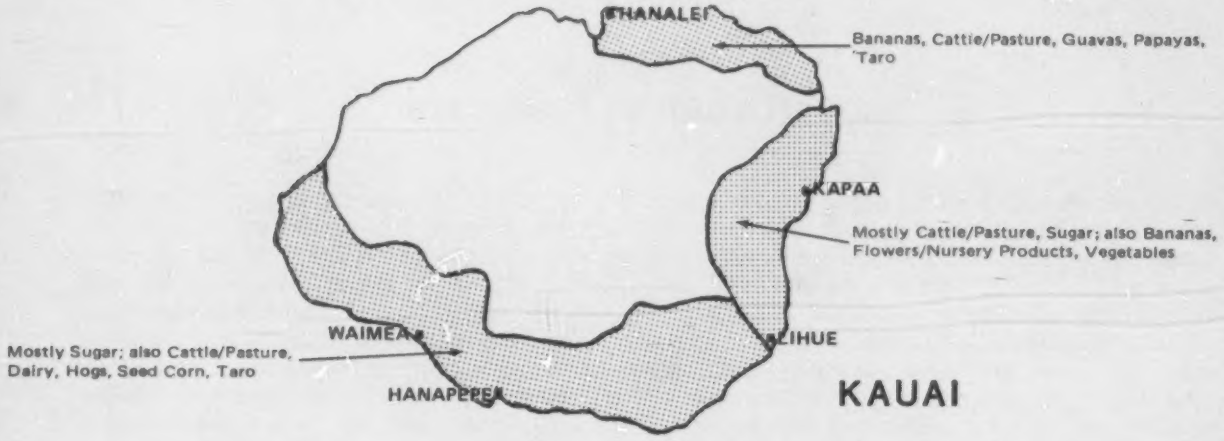
Climatology
Review 16
Rainfall data 17

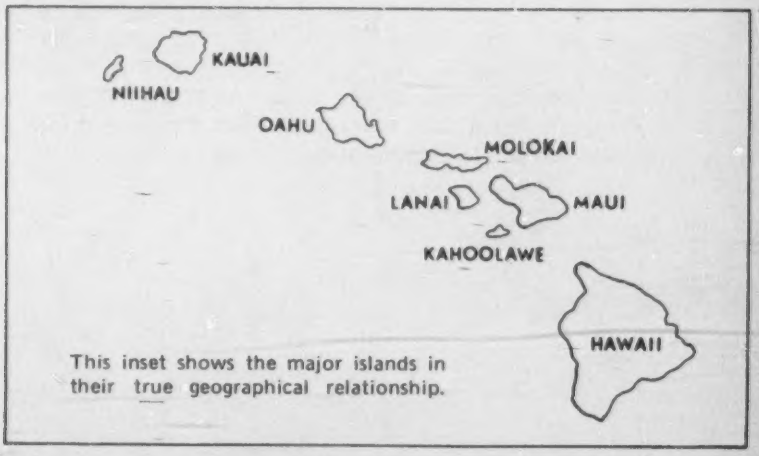
MAJOR AGRICULTURAL AREAS, STATE OF HAWAII, 1988


HAWAII
KOHALA
HONOKAA
WAIMEA (KAMUELA)
HILO
KAILUA-KONA
KEALAKEKUA
PAHOA
NAALEHU
Mostly Cattle/Pasture; also Dairy, Flowers/ Nursery Products, Macadamia Nuts, Poultry, Sheep
Broccoli, Burdock, Chinese Cabbage, Cattle/Pasture, Cauliflower, Celery, Daikon, Dairy, Head Lettuce, Romaine, Roses
Mostly Sugar; also Cattle/Pasture, Cucumbers, Ginger Root, Macadamia Nuts, Taro,
Flowers/Nursery Products, Guavas, Macadamia Nuts, Poultry
Anthuriums, Bananas, Citrus, Cucumbers, Flowers/Nursery Products, Guavas, Macadamia Nuts, Orchids, Papayas, Tomatoes
Avocados, Cattle/Pasture, Coffee, Eggplant, Flowers/Nursery Products, Macadamia Nuts, Poultry, Tomatoes
Mostly Cattle/Pasture, Macadamia Nuts, Sugar; also Carnations, Citrus, Dairy




MAUI
Mostly Pineapple, Sugar; also Cattle/Pasture, Flowers/Nursery Products, Hogs, Macadamia Nuts
Sugar, Pineapple
KAHULUI
WAILUKU
LAHAINA
Head Cabbage, Carnations, Cattle/Pasture, Dairy, Flowers/Nursery Products, Hogs, Head Lettuce, Dry Onions, Protea, Romaine, Tomatoes
KIHEI
KULA
HANA
Cattle/Pasture
Mostly Cattle/Pasture; also Bananas, Flowers/Nursery Products, Macadamia Nuts, Papayas
Mostly Cattle/Pasture; also Bush Beans, Flowers/Nursery Products, Hay, Hogs, Green Peppers, Seed Corn, Sweetpotatoes, Tomatoes, Watermelons
LANAI
MOLOKAI
LANAI CITY
Pineapples
KAUNAKAKAI


HANALEI
Bananas, Cattle/Pasture, Guavas, Papayas, Taro
KAPAA
Mostly Cattle/Pasture, Sugar; also Bananas, Flowers/Nursery Products, Vegetables
WAIMEA
LIHUE
Mostly Sugar; also Cattle/Pasture, Dairy, Hogs, Seed Corn, Taro
HANAPEPE
KAUAI


KAUAI
NIIHAU
OAHU
MOLOKAI
LANAI
MAUI
KAHOOLAWE
HAWAII
This inset shows the major islands in their true geographical relationship.

HAWAII AGRICULTURE 1988

Hawaii's farmers and ranchers rang up farm level cash receipts from the sale of crops and livestock of $574 million during 1988, 3 percent more than 1987, and the third best year ever for agriculture. The 1988 total, which does not measure the total contribution of agriculture to the State, just the farm level value, was exceeded only in 1974 and 1980, both years of high sugar prices. The 1988 total was accomplished despite a 4 percent decline in the value of sugarcane, the State's number one agricultural commodity, and marked the first time there has been a year-to-year increase in the value of agriculture when there was a corresponding decline in the value of sugar. Diversified agriculture, which is everything except sugar and pineapple, turned in it's strongest performance ever with receipts of $257 million, 7 percent above the previous year's total. Pineapple, the State's second most important crop had an equivalent farm value of $107 million, 8 percent greater than the 1987 value. The equivalent farm level value of sugarcane declined $8 million to $210 million, the lowest level since 1981. Although there were many diversified commodities which experienced increases from the year before, flowers and nursery products, macadamia nuts, and fruits other than pineapple led the way. When the values of sugar and pineapple after processing are included, the contribution of agriculture to the State's economy was $828 million, unchanged from 1987. Value data beyond the farm level for crops other than sugar and pineapple are not available.

SUMMARY: Acreage in crop and total farm acreage, by islands, 1984-88

Year	Sugarcane	Pineapples[1]	Vegetables and melons[2]	Fruits (excluding pineapples)	Coffee	Macadamia nuts	Miscellaneous crops[3]	Total farm acreage[4]
	1,000 acres							
				STATE[5]				
1984	188.4	35.0	5.3	6.5	2.0	17.5	12.0	[6]1,850
1985	187.9	34.5	5.4	6.5	2.1	20.9	8.5	[6]1,800
1986	184.3	36.0	5.4	6.8	2.3	21.2	5.2	[6]1,750
1987	181.1	36.1	5.6	7.0	2.4	21.5	6.0	[6]1,720
1988	**176.5**	**34.6**	**5.2**	**7.6**	**2.6**	**21.9**	**7.4**	**1,720**
				HAWAII				
1984	70.9		2.0	4.6	2.0	15.9	1.7	[6]1,075
1985	69.9		2.0	4.8	2.1	19.1	3.2	[6]1,050
1986	69.1		1.9	5.2	2.3	19.4	2.7	[6]1,035
1987	68.5		1.9	5.3	2.4	19.5	2.8	[6]1,010
1988	**66.7**		**1.8**	**5.9**	**2.6**	[7]	**3.1**	**1,010**
				KAUAI/NIIHAU				
1984	43.9	*	.1	.9		[7]	.7	[6]260
1985	43.7	*	.1	.9		[7]	.6	[6]245
1986	43.2	*	.1	.8		[7]	.6	[6]230
1987	43.0	*	.1	.8		[7]	.7	[6]225
1988	**41.9**	*	**.1**	**.7**		[7]	**.8**	**225**
				MAUI/MOLOKAI/LANAI				
1984	47.2	23.2	1.8	.2		[7]	9.0	[6]390
1985	47.2	23.0	1.9	.1		[7]	4.1	[6]380
1986	46.1	24.0	2.0	.1		[7]	1.2	[6]360
1987	43.9	23.7	2.2	.1		[7]	1.7	[6]360
1988	**42.2**	**21.3**	**2.3**	**.1**		[7]	**1.9**	**360**
				OAHU				
1984	26.4	11.8	1.4	.8		[7]	.6	[6]125
1985	27.1	11.5	1.4	.7		[7]	.6	[6]125
1986	25.9	12.0	1.4	.7		[7]	.7	[6]125
1987	25.7	12.4	1.4	.8		[7]	.8	[6]125
1988	**25.7**	**13.3**	**1.0**	**.9**		[7]	**1.6**	**125**

* = Less than 500 acres.
[1]Land used for pineapple.
[2]Harvested acreage.
[3]Includes taro, seed corn, feed and forage crops (excluding pineapple feed products), and flowers, foliage and nursery products.
[4]Includes land not in crop and pasture such as farm house lots, roads, woodlots, etc.
[5]Sum of island estimates may not add to State total due to rounding.
[6]Revised.
[7]Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARIES

SUMMARY: Number of crop farms, by islands, 1984-88

Year	Sugar	Pineapples	Vegetables and melons	Fruits (excluding pineapples)	Coffee	Macadamia nuts	Taro	Flowers and nursery products
				STATE				
1984	185	18	677	800	615	605	137	670
1985	155	18	715	805	620	610	155	675
1986	120	[1]19	750	793	620	645	140	635
1987	100	12	660	774	630	650	140	670
1988	**75**	**12**	**575**	**775**	**635**	**660**	**155**	**675**
				HAWAII				
1984	174		310	520	615	595	57	315
1985	144		340	535	620	600	72	310
1986	109		400	531	620	630	65	300
1987	89		344	518	630	630	68	320
1988	**64**		**290**	**526**	**635**	**640**	**92**	**325**
				KAUAI				
1984	5	3	62	81		4	50	25
1985	5	3	60	80		4	48	30
1986	5	3	48	78		5	50	25
1987	5	3	38	70		8	46	30
1988	**5**	**3**	**35**	**67**		**8**	**42**	**35**
				MAUI/MOLOKAI/LANAI				
1984	3	13	80	48		3	20	80
1985	3	13	75	45		3	23	85
1986	3	[1]14	85	47		7	20	75
1987	3	7	92	43		9	19	90
1988	**3**	**7**	**90**	**43**		**9**	**14**	**85**
				OAHU				
1984	3	2	225	151		3	10	250
1985	3	2	240	145		3	12	250
1986	3	2	217	137		3	5	235
1987	3	2	186	143		3	7	230
1988	**3**	**2**	**160**	**139**		**3**	**7**	**230**

[1]Revised.

SUMMARY: Number of livestock operations and total number of farms, by islands, 1984-88[1]

Year	Cattle[2]	Hogs	Milk	Eggs	Broilers	Honey	Total (non-duplicated)[3]
				STATE			
1984	850	650	90	55	8	25	4,600
1985	850	650	90	55	7	22	[4]4,600
1986	800	600	90	55	8	20	[4]4,600
1987	800	600	90	55	8	14	[4]4,650
1988	**800**	**600**	**90**	**55**	**8**	**12**	**4,650**
				HAWAII			
1984	395	85	40	25		6	2,650
1985	400	85	41	24		7	[4]2,650
1986	365	80	41	25		6	[4]2,700
1987	380	80	41	25		4	[4]2,700
1988	**370**	**80**	**41**	**25**		**4**	**2,700**
				KAUAI/NIIHAU			
1984	165	125	13	4	1	10	375
1985	165	120	13	4	1	8	375
1986	160	110	13	4	1	7	[4]400
1987	170	120	13	4	1	5	[4]400
1988	**170**	**120**	**13**	**4**	**1**	**3**	**400**
				MAUI/MOLOKAI/LANAI			
1984	215	105	16	6		4	550
1985	205	110	16	7		4	550
1986	200	100	16	7		4	[4]550
1987	180	100	16	7		3	[4]600
1988	**190**	**100**	**16**	**7**		**4**	**600**
				OAHU			
1984	75	335	21	20	7	5	1,025
1985	80	335	20	20	6	3	[4]1,025
1986	75	310	20	19	7	3	950
1987	70	300	20	19	7	2	950
1988	**70**	**300**	**20**	**19**	**7**	**1**	**950**

[1]End of year.
[2]Includes beef, dairy, and dairy replacement operations.
[3]Based on farm definition of $1,000 or more of agricultural sales.
[4]Revised.

SUMMARY: Volume of crop marketings, by islands, 1984-88

Year	Sugar (unprocessed cane)	Pineapples (fresh equivalent)	Vegetables and melons	Fruits (excluding pineapples)	Coffee (parchment)	Macadamia nuts (in shell)	Taro
	1,000 tons		1,000 pounds				
				STATE[1]			
1984	8,454	600	87,350	99,430	1,750	37,700	6,310
1985	7,916	565	89,730	80,980	1,850	42,000	6,860
1986	8,379	646	92,000	90,610	3,000	44,000	6,330
1987	8,014	692	95,330	99,330	1,800	42,700	6,300
1988	**7,606**	**659**	**92,730**	**104,570**	**2,000**	**45,500**	**6,800**
				HAWAII			
1984	3,420		38,170	75,320	1,750	37,500	795
1985	2,686		37,150	64,030	1,850	41,400	1,010
1986	2,797		33,360	68,110	3,000	43,350	840
1987	2,566		37,220	76,240	1,800	41,300	1,280
1988	**2,300**		**33,420**	**83,960**	**2,000**	[2]	**1,530**
				KAUAI			
1984	1,599	*	1,890	16,450		[2]	4,350
1985	1,802	*	1,690	10,430		[2]	4,780
1986	1,977	*	1,650	14,600		[2]	4,490
1987	1,912	*	1,060	15,520		[2]	4,170
1988	**2,009**	*	**990**	**12,770**		[2]	**4,410**
				MAUI/MOLOKAI/LANAI			
1984	2,283	419	32,730	1,420		[2]	[2]
1985	2,208	358	35,670	1,260		[2]	[2]
1986	2,251	415	40,620	1,340		[2]	[2]
1987	2,236	444	42,140	1,250		[2]	[2]
1988	**2,128**	**388**	**46,570**	**990**		[2]	[2]
				OAHU			
1984	1,152	181	14,560	6,240		[2]	[2]
1985	1,220	207	15,220	5,260		[2]	[2]
1986	1,354	231	16,370	6,560		[2]	[2]
1987	1,300	248	14,910	6,320		[2]	[2]
1988	**1,169**	**271**	**11,750**	**6,850**		[2]	[2]

* = Less than 500 tons.

[1]Sum of island estimates may not add to State total due to rounding of State estimates to 1,000 hundredweight of some crops included in United States totals.

[2]Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Volume of livestock marketings, by islands, 1984-88

Year	Beef (dressed weight)[1]	Pork (dressed weight)	Milk	Eggs	Broilers and chickens (ready-to-cook weight)	Honey
	1,000 pounds		Million pounds	Million	1,000 pounds	
			STATE[2]			
1984	32,116	7,878	146.0	209.7	8,102	1,089
1985	33,928	7,859	139.8	220.5	7,706	1,188
1986	33,764	8,643	153.1	227.0	7,629	1,323
1987	34,335	8,431	153.7	223.3	7,988	1,710
1988	**31,403**	**8,217**	**157.1**	**224.4**	**7,994**	**1,611**
			HAWAII			
1984	20,906	651	[3]	[3]	[3]	[3]
1985	21,824	700	[3]	[3]	[3]	[3]
1986	22,500	748	[3]	[3]	[3]	[3]
1987	25,718	688	[3]	[3]	[3]	[3]
1988	**26,188**	**564**	[3]	[3]	[3]	[3]
			KAUAI/NIIHAU			
1984	2,132	593	[3]	[3]	[3]	[3]
1985	2,118	689	[3]	[3]	[3]	[3]
1986	2,099	990	[3]	[3]	[3]	[3]
1987	1,923	1,045	[3]	[3]	[3]	[3]
1988	**1,227**	**1,062**	[3]	[3]	[3]	[3]
			MAUI/MOLOKAI			
1984	7,686	1,819	[3]	[3]	[3]	[3]
1985	8,447	1,803	[3]	[3]	[3]	[3]
1986	8,175	1,798	[3]	[3]	[3]	[3]
1987	5,219	1,780	[3]	[3]	[3]	[3]
1988	**3,229**	**1,921**	[3]	[3]	[3]	[3]
			OAHU			
1984	1,392	4,815	112.2	177.7	[3]	[3]
1985	1,539	4,667	107.0	186.4	[3]	[3]
1986	989	5,107	116.5	189.7	[3]	[3]
1987	1,475	4,918	115.6	179.8	[3]	[3]
1988	**759**	**4,670**	**120.7**	**180.9**	[3]	[3]

[1]Includes slaughter cattle but excludes calves shipped out-of-State.
[2]State totals may not add due to rounding.
[3]Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Value of crop sales, by islands, 1984-88

Year	Sugar (unprocessed cane)	Pineapples (fresh equivalent)	Vegetables and melons	Fruits (excluding pineapples)	Coffee (parchment)
	1,000 dollars				
			STATE		
1984	256,200	89,928	26,609	13,315	4,813
1985	222,400	90,530	30,334	12,794	5,180
1986	233,800	99,720	30,267	16,606	8,700
1987	218,000	99,286	30,556	17,431	4,860
1988	**209,900**	**107,402**	**30,917**	**20,477**	**6,600**
			HAWAII		
1984	94,000		10,384	9,360	4,813
1985	69,800		12,549	9,284	5,180
1986	74,100		11,988	12,381	8,700
1987	64,400		12,074	13,064	4,860
1988	**60,000**		**13,035**	**16,184**	**6,600**
			KAUAI		
1984	52,400	*	594	1,913	
1985	53,300	*	608	1,697	
1986	54,000	*	604	2,112	
1987	51,200	*	435	2,327	
1988	**51,800**	*	**359**	**2,079**	
			MAUI/MOLOKAI/LANAI		
1984	72,600	42,176	9,088	343	
1985	63,600	36,380	9,966	255	
1986	67,500	45,540	10,156	311	
1987	66,900	46,366	11,110	295	
1988	**66,200**	**39,141**	**11,080**	**220**	
			OAHU		
1984	37,200	47,752	6,543	1,699	
1985	35,700	54,150	7,211	1,558	
1986	38,200	54,180	7,519	1,802	
1987	35,500	52,920	6,937	1,745	
1988	**31,900**	**68,261**	**6,443**	**1,994**	

See footnotes at end of table.

Continued

SUMMARY: Value of crop sales, by islands, 1984-88 -- Continued

Year	Macadamia nuts (in shell)	Taro	Field crops (not estimated separately)[1]	Flowers and nursery products[2]	Total crops[3]
			1,000 dollars		
			STATE		
1984	26,088	1,382	6,062	38,905	463,502
1985	30,450	1,578	8,198	44,162	445,826
1986	35,200	1,462	6,225	49,132	481,312
1987	35,868	1,676	6,947	54,731	469,565
1988	**40,950**	**1,904**	**7,423**	**59,646**	**485,469**
			HAWAII		
1984	25,950	205	142	16,944	161,983
1985	30,015	290	2,615	19,605	149,523
1986	34,680	236	909	22,797	165,976
1987	34,527	452	651	23,668	153,891
1988	[4]	**534**	**607**	**29,036**	**165,619**
			KAUAI		
1984	[4]	918	1,716	788	58,351
1985	[4]	1,032	1,716	1,179	59,554
1986	[4]	1,010	1,558	1,146	60,452
1987	[4]	1,017	2,205	1,235	58,464
1988	[4]	**1,155**	**2,644**	**1,949**	**60,044**
			MAUI/MOLOKAI/LANAI		
1984	[4]	[4]	3,832	4,546	132,898
1985	[4]	[4]	3,487	5,188	119,484
1986	[4]	[4]	3,229	5,244	132,647
1987	[4]	[4]	3,319	6,663	136,126
1988	[4]	[4]	**3,308**	**7,257**	**128,878**
			OAHU		
1984	[4]	[4]	372	16,627	110,270
1985	[4]	[4]	380	18,190	117,265
1986	[4]	[4]	529	19,945	122,237
1987	[4]	[4]	772	23,165	121,084
1988	[4]	[4]	**864**	**21,404**	**130,928**

* = Less than $50,000.

[1]Forage and grain crops.

[2]Flowers, foliage, and nursery products.

[3]Total crop values shown for individual islands are actual. Sum of individual commodities may not add to total. Forest product's value combined and included in total crop value.

[4]Island data not shown separately to avoid disclosure of individual operations but combined and included in the State total.

SUMMARY: Value of livestock sales, total value of crop and livestock sales, and government payments, by islands, 1984-88

Year	Cattle[1]	Hogs[1]	Milk	Eggs	Broilers and chickens	Other[2]	Total livestock[3]	Total crops and livestock	Government payments[4]
	1,000 dollars								
	STATE								
1984	28,101	8,088	29,288	15,535	5,189	814	87,015	550,517	2,675
1985	26,632	7,995	28,310	14,020	4,895	971	82,823	528,649	1,184
1986	24,645	8,770	30,605	13,450	4,744	1,191	83,405	564,717	2,810
1987	27,401	8,509	31,201	14,291	5,119	1,212	87,733	557,298	344
1988	**27,984**	**8,381**	**32,190**	**13,801**	**5,110**	**1,154**	**88,620**	**574,089**	**465**
	HAWAII								
1984	18,126	729	[5]	[5]	[5]	535	23,233	185,216	458
1985	16,870	760	[5]	[5]	[5]	662	22,122	171,645	508
1986	16,385	778	[5]	[5]	[5]	742	21,982	187,958	204
1987	20,535	707	[5]	[5]	[5]	814	26,415	180,306	240
1988	**23,274**	**590**	[5]	[5]	[5]	**649**	**29,027**	**194,646**	**303**
	KAUAI/NIIHAU								
1984	2,041	668	[5]	[5]	[5]	106	5,203	63,554	47
1985	1,860	758	[5]	[5]	[5]	117	5,071	64,625	44
1986	1,734	1,069	[5]	[5]	[5]	216	5,229	65,681	20
1987	1,625	1,114	[5]	[5]	[5]	193	5,073	63,537	17
1988	**1,021**	**1,140**	[5]	[5]	[5]	**248**	**4,749**	**64,793**	**12**
	MAUI/MOLOKAI/LANAI								
1984	6,889	1,940	[5]	[5]	[5]	125	12,521	145,419	94
1985	6,820	1,935	[5]	[5]	[5]	149	12,215	131,699	598
1986	5,926	1,918	[5]	[5]	[5]	181	11,751	144,398	2,563
1987	4,317	1,934	[5]	[5]	[5]	153	10,591	146,717	57
1988	**3,128**	**2,074**	[5]	[5]	[5]	**201**	**9,159**	**138,037**	**80**
	OAHU								
1984	1,045	4,751	22,485	12,809	[5]	48	46,058	156,328	2,076
1985	1,082	4,542	21,710	11,477	[5]	43	43,415	160,680	34
1986	600	5,005	23,358	11,022	[5]	52	44,443	166,680	23
1987	924	4,754	23,895	11,282	[5]	52	45,654	166,738	30
1988	**561**	**4,577**	**24,912**	**10,865**	[5]	**56**	**45,685**	**176,613**	**70**

[1]Excludes interfarm sales; includes out-of-State sales of slaughter cattle and feeder calves.

[2]Includes sheep, wool, turkeys, horses, honey, and beeswax.

[3]Sum of individual commodities may not add to total.

[4]Includes all government payments, such as Agricultural Conservation Program, Cattle Indemnity Payment Program, Dairy Indemnity Payment Program, Emergency Conservation Program, Forestry Incentives Program, Emergency Feed Program, wool payments, and sugar support.

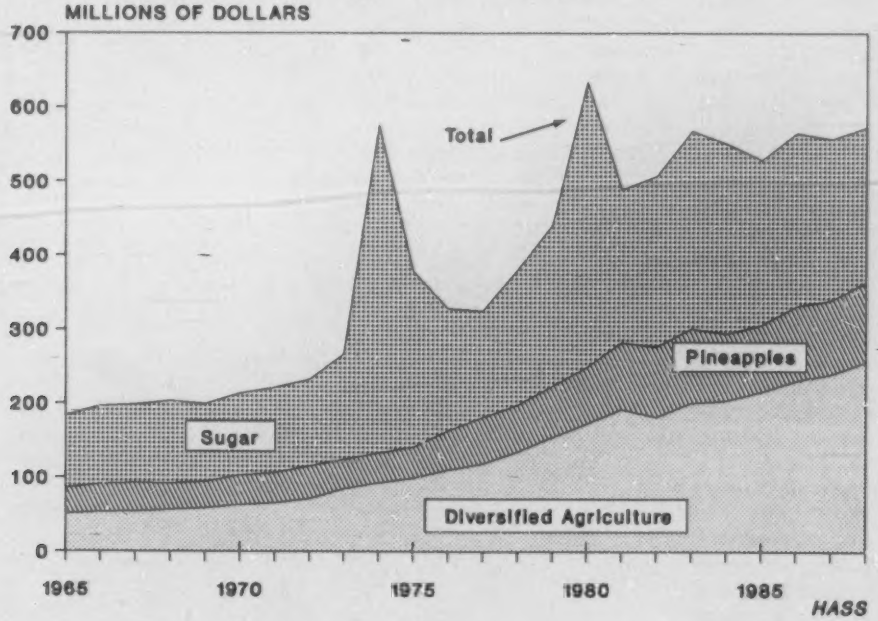
[5]Island data not shown separately to avoid disclosure of individual operations but combined and included in State total.

DIVERSIFIED AGRICULTURE SUMMARY

Diversified agriculture ranked by value, State of Hawaii, 1986-88

Crops	Rank			Value of production			Percent of diversified agriculture		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
	Number			1,000 dollars			Percent		
Flowers and nursery products	1	1	1	49,132	54,731	59,646	21.3	22.8	23.2
Macadamia nuts	2	2	2	35,200	35,868	40,950	15.2	14.9	16.0
Milk	3	3	3	30,605	31,201	32,190	13.2	13.0	12.5
Vegetables and melons	4	4	4	30,267	30,556	30,917	13.1	12.7	12.0
Cattle	5	5	5	24,645	27,401	27,984	10.7	11.4	10.9
Fruits (excluding pineapple)	6	6	6	16,606	17,431	20,477	7.2	7.3	8.0
Eggs	7	7	7	13,450	14,291	13,801	5.8	6.0	5.4
Hogs	8	8	8	8,770	8,509	8,381	3.8	3.6	3.3
Forage, grain, and forest products	10	9	9	6,425	7,157	7,673	2.8	3.0	3.0
Coffee	9	11	10	8,700	4,860	6,600	3.8	2.0	2.6
Broilers and chickens	11	10	11	4,744	5,119	5,110	2.0	2.1	2.0
Taro	12	12	12	1,462	1,676	1,904	.6	.7	.7
Other livestock	13	13	13	1,191	1,212	1,154	.5	.5	.4
Total				231,197	240,012	256,787	100.0	100.0	100.0

CASH RECEIPTS OF AGRICULTURAL COMMODITIES, STATE OF HAWAII, 1965-88



RECORD CASH RECEIPTS FOR MANY CROPS

• *SUGAR*

Raw sugar production totaled 928,000 tons in 1988, down 5 percent from 1987 and only the third time in the last 28 years that production fell below a million tons. Less than favorable weather and lapses in agronomic practices plagued the industry last year and were major reasons for sugar yields falling to a five-year low. The decline in output was particularly disheartening because raw sugar prices rose 2 percent to an average of $337 per ton in 1988, a 4-year high. Total value of production (including molasses) is estimated at $324.0 million in 1988, down 4 percent from the previous year.

• *PINEAPPLES*

The 1988 pineapple crop was pegged at 659,000 tons, 5 percent less than the 1987 crop. Fresh sales, which accounted for 20 percent of the total harvest, remained relatively stable at 133,000 tons while the amount of pineapples being processed fell 6 percent to 526,000 tons. The final phaseout of operations on Molokai was largely responsible for the decline in overall production and for a similar decline in the amount of acreage under cultivation. Despite the decline in output, farm value reached a record $107.4 million in 1988 on the strength of higher farm prices for both fresh and processed pineapples.

• *FLORICULTURE*

Value of **FLOWER and NURSERY PRODUCT** sales blossomed to a record $59.6 million in 1988, up 9 percent from 1987. **FOLIAGE** farmers led all segments of the industry with total receipts of $20.1 million, up 12 percent from 1987. **CUT FLOWERS** remained second on proceeds of $17.6 million, up 6 percent from 1987 despite the continued loss of anthurium production due to bacterial blight. The combined category of **ALL OTHER NURSERY PRODUCTS** moved into third with 1988 sales of $7.2 million, up 40 percent from the previous year. The value of all **ORCHID** sales went up a modest 2 percent to $7.2 million largely on the strength of increased dendrobium spray sales. **LEI FLOWERS** was the only segment of the industry to show a decrease in the value of grower sales last year. A New Year's Eve rainstorm caused extensive damage to tuberose fields in the windward area of Oahu. Sales of tuberose, which accounted for 46 percent of all lei flower sales in 1987, dropped 51 percent to $1.2 million last year. **POTTED FLOWERING PLANTS** remained the smallest segment of the industry with 1988 sales of $3.0 million, up 11 percent from 1987.

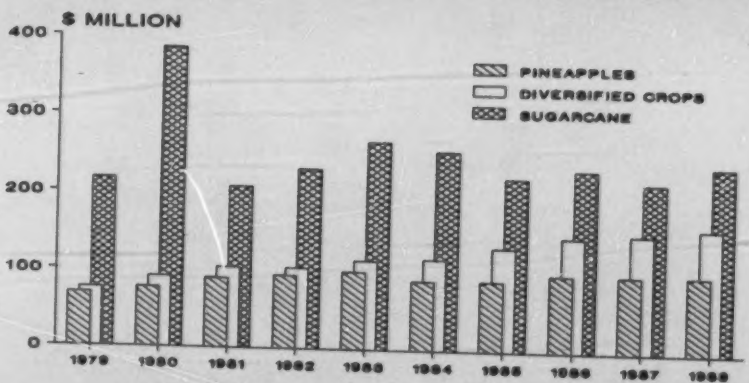
• *MACADAMIA NUTS*

Macadamia nut farmers solidified their position as the State's top diversified crop by harvesting a record 45.5 million pounds (net, wet in-shell basis) and amassing a record farm value of $41.0 million during the 1988-89 season. Production was aided by improved weather conditions, higher yields from maturing trees, and an increase in bearing acreage to an all time high of 16,600 acres. Hawaii's growers were also able to reap financial benefits during the 1988-89 season as competition among processors for available nuts was intense due to strong consumer demand. As a result, the farm price averaged a record high 90.0 cents per pound (net, wet in-shell basis), up 7 percent from the previous season and the fifth consecutive seasonal increase.

• *VEGETABLES AND MELONS*

Output of vegetables and melons totaled 92.7 million pounds during 1988, down 3 percent from 1987. A reduction in harvested acreage, disease problems, and adverse weather were some of the reasons

VALUE OF CROP SALES STATE OF HAWAII, 1979-88



why the majority of vegetables and melons in the State registered a decline in production last year. The State's top melon- and vegetable crop, however, each posted record harvests in 1988. **WATERMELON** farmers out-produced all other vegetable and melon growers by picking a record 18.9 million pounds during 1988, up 37 percent from the previous year. Likewise, **HEAD CABBAGE** growers bettered their previous record harvest with 15.6 million pounds in 1988. **CHINESE CABBAGE**, the State's second largest vegetable crop, also experienced an increase in output with 1988 sales pegged at 8.3 million pounds, up 4 percent from 1987. Despite the record production achieved by some crops, reductions in output by major vegetables such as **SWEET CORN** (down 820,000 pounds), **GINGER ROOT** (down 1,950,000 pounds), **LETTUCES** (down 2,500,000 pounds), **GREEN PEPPERS** (down 870,000 pounds), **DRY ONIONS** (down 560,000 pounds), and **CELERY** (down 530,000 pounds) were more than enough to offset all gains. The total farm value of the vegetable and melon industry was estimated at $30.9 million for 1988, up 1 percent from 1987. Most commodities returned higher prices during 1988 due to shorter supplies.

- *FRUITS*

Diversified fruits (excluding Pineapples) had a total production of 104.6 million pounds during 1988, up 5 percent from 1987. Farm revenues tallied a record $20.5 million last year, up 17 percent from the previous year. The absence of any major obstacles enabled the **PAPAYA** industry to harvest 69.0 million pounds of fruit during 1988, up 3 percent from 1987 and second only to 1984's record harvest of 80.5 million pounds. Farm prices also improved in 1988 with returns from fresh sales up 9 percent to an average of 21.0 cents per pound and returns from processed sales up 45 percent to 3.2 cents per pound. **GUAVA** processors utilized a record 19.0 million pounds of fruit during 1988, up 5 percent from 1987. An increase in harvested acreage and higher farm prices helped to boost production, but a labor shortage at one major grower resulted in an incomplete harvest. **BANANA** growers tied or set a bunch of records during 1988. Leading the way was a record output of 12.9 million pounds, up 13 percent from the previous year. A decline in U.S. banana imports helped push the average farm price for locally grown bananas to a record 33.0 cents per pound. Total area in crop remained at the previous year's record high of 1,220 acres as the number of new plantings equaled abandonments.

- *TARO*

Taro farmers produced an estimated 6.8 million pounds during 1988, up 8 percent from 1987 and the second highest total in the past ten years. Total production got a boost from an increase in Chinese taro acreage, but an overall improvement in weather was the major reason for the rise in output. The average farm price increased for the fourth consecutive year in 1988 as higher returns for processed taro more than offset a decline in revenues from fresh taro sales. At 28.0 cents per pound, the 1988 farm price represented a 5 percent increase from the previous year.

- *COFFEE*

Coffee production during the 1988-89 season is estimated at 2.0 million pounds (parchment basis), up 11 percent from the previous season's revised estimate of 1.8 million pounds. Production was hampered by an irregular weather pattern which offset a good spring flowering with drier than normal conditions during the crucial fruit set and development stages. Partially compensating for the weather was an increase in harvested acreage to 2,150 acres. Total area in crop rose to 2,600 acres as major planting activity continued outside the traditional growing area of Kona. Farm value for the 1988-89 season is projected at $6.6 million, up 36 percent from the previous season and the second highest amount on record.

TOP CROPS

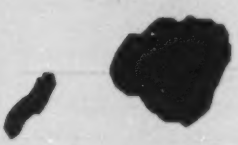
Principal crops ranked by value, State of Hawaii, 1987-88

Crops	Rank		Value of production		Percent of all crops	
	1987	1988	1987	1988	1987	1988
	---Number---		-----1,000 dollars-----		----Percent---	
Sugar	1	1	218,000	209,900	46.4	43.2
Pineapples	2	2	99,286	107,402	21.2	22.1
Macadamia nuts	3	3	35,868	40,950	7.6	8.4
Potted foliage plants	4	4	13,330	12,424	2.8	2.6
Papayas	5	5	11,050	12,354	2.4	2.5
Anthuriums	6	6	8,652	8,022	1.8	1.7
Seed corn	8	7	6,060	6,620	1.3	1.4
Coffee	7	8	4,860	6,600	1.0	1.4
Ginger root	9	9	4,523	5,022	1.0	1.0
Potted landscape plants	15	10	2,302	4,751	.5	1.0

1988 WEATHER REVIEW

January - March

The same cold front responsible for a devastating New Year's Eve rainstorm on Oahu and Kauai lingered around the State for the first part of January resulting in a general slowdown of agricultural activity. The showery weather made recovery efforts particularly difficult for farmers on the windward side of Kauai and Oahu who were most seriously affected by the New Year's Eve downpour. By mid-January the storm system cleared the islands and



mostly sunny skies returned. Weather conditions remained generally favorable for the remainder of the first quarter although occasionally heavy showers prompted the cautionary issuance of flash flood warnings. Many farmers used this period of beneficial weather to clean up fields, and resume normal planting schedules. Unstable weather, however, returned to the State in late March with a spectacular display of lightning, thunderstorms, isolated reports of hail, and a dusting of snow on Mauna Kea and Mauna Loa.

April - June

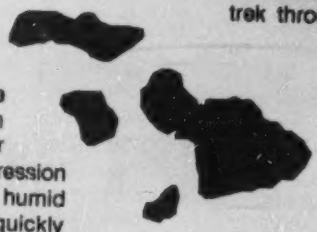
Showery weather extended into the first week of April with some windward areas experiencing almost constant rainfall. The air masses over the State became stable

and drier at mid-month allowing farmers a chance to resume normal activities. Temperatures warmed considerably in the following weeks with daily readings near or above normal levels including a few instances of new record highs. The sunny skies and mostly nocturnal showers were beneficial to crops which made favorable growth during this quarter. Rainfall was light to occasionally heavy and were mainly limited to windward areas.

July - September

Variable conditions continued to dominate island weather through August. Leeward areas were dry and hot forcing farmers to irrigate heavily in order to maintain normal crop progress. Conditions were cooler in windward areas, although periodic spells of heavy rain slowed

farming. The early part of August saw the State buffeted by the passage of three storm systems. Moist, tropical air surrounding Tropical Depression Gilma initially produced humid conditions which were quickly followed by some heavy rainfall in windward areas. After a brief respite of sunshine, Tropical Depression Fabio passed south of the State bringing more rain and gusty winds. These two tropical depressions were then followed by the remnants of former Tropical Depression Hector which impacted windward areas with heavy rains. Overall, no major agricultural damage resulted from the passage of these tropical storms. However, the persistent wet conditions slowed plantings and crop growth which in turn resulted in lower output and yields in many windward areas. On the other hand, the heavy rains were beneficial in helping to replenish reservoir levels which were low due to heavy irrigation usage during the summer and renewing soil moisture in pastures. A period of hot, humid weather followed the passage of the tropical storms and this persisted to the end of the quarter.



October - December

In late October, an eastward moving shower area brought some relief from the late summer heat. Cooler days and frequent showers helped many crops to make improved growth. Early November saw the appearance of the State's first winter storm as a low pressure storm

formed off of Kauai and began its eastward trek through the State. Heavy rains were accompanied by wind gusts up to 40 mph. Like the rest of the year, windward areas received the bulk of the rainfall hence, agricultural operations were hampered in those areas. A beneficial mixture of sunshine and showers

followed until mid-December when another winter storm hit the islands. Heavy rains pelted all islands but the eastward moving storm was most intense on Oahu, Maui, and Molokai. A subsequent cold front encroached the islands and brought cool temperatures along with more rains. By year's end sunny skies had once again returned to all islands.

WEATHER: Precipitation, selected stations, State of Hawaii, 1988

STATIONS	YEAR & NORMAL	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual	% OF NORMAL
ISLAND OF HAWAII															
Hawaii National Park Hq. 54	Normal	10.61	10.23	11.75	10.10	7.75	4.67	5.23	7.20	4.38	6.89	11.47	12.33	102.81	
	1988	5.84	7.53	7.21	6.01	5.01	3.04	3.43	7.90	3.67	5.38	19.94	13.24	88.20	85.8
Hilo (285)	Normal	9.07	12.90	13.69	12.88	10.07	6.61	9.54	10.88	7.44	10.96	13.77	15.76	133.57	
	1988	10.80	9.90	9.90	12.20	10.50	4.80	6.60	16.10	4.70	14.90	24.00	5.60	130.00	97.3
Kealakekua (HI84)	Normal	3.50	2.40	3.80	4.10	5.90	6.10	6.80	8.70	8.00	6.20	3.60	2.10	61.20	
	1988	5.40	5.30	.50	5.10	4.00	4.80	2.50	4.80	6.50	.70	3.20	5.30	48.10	78.6
Naalehu 14	Normal	7.97	5.85	5.53	2.70	2.18	1.79	1.58	3.92	3.36	3.88	5.21	4.57	48.54	
	1988	4.31	2.52	5.32	1.07	3.43	1.06	.47	4.07	2.28	3.15	6.13	4.40	38.21	78.7
Pahoa (HI83)	Normal	11.02	13.17	15.16	12.59	11.87	8.10	10.20	11.13	8.50	11.81	14.28	17.28	145.11	
	1988	12.20	9.30	6.60	11.80	11.80	6.90	7.00	12.00	4.90	11.60	22.60	9.70	126.40	87.1
Waimea (HI86)	Normal	4.21	3.78	3.97	3.55	2.20	1.57	2.31	2.52	1.07	2.03	2.78	4.84	34.83	
	1988	9.30	3.90	2.70	2.10	5.10	1.80	3.40	2.80	2.00	4.60	2.80	2.90	43.40	124.6
ISLAND OF KAUAI															
Eleele 927	Normal	5.74	3.39	3.28	2.39	1.74	1.10	1.33	1.79	1.40	2.61	3.60	5.12	33.49	
	1988	1.06	.38	1.56	1.30	3.86	.28	2.68	1.99	.73	.86	9.61	3.59	27.90	83.3
Kekaha 944	Normal	4.63	2.57	2.37	1.56	1.04	.25	.39	.75	.74	1.72	2.18	4.24	22.44	
	1988	.98	.21	1.04	.32	2.55	+	.41	1.10	.39	.31	7.04	3.32	17.67	78.7
Wailua (HI40)	Normal	9.42	7.09	8.28	7.07	5.45	4.07	5.68	6.60	4.65	7.45	9.03	9.41	84.20	
	1988	8.80	3.90	8.40	4.50	11.80	1.60	6.70	10.00	3.90	5.80	13.80	12.80	92.00	109.3
ISLAND OF LANAI															
Lanai Airport (LNY)	Normal	5.50	1.40	1.60	.90	.70	.20	.50	.60	.70	1.60	1.20	2.30	17.20	
	1988	1.22	.40	+	+	+	.00	.30	.30	.80	1.16	3.17	M	7.35	42.7
ISLAND OF MAUI															
Hamakuapoko HC&S 485	Normal	5.10	4.85	5.81	4.50	2.83	2.39	3.60	3.65	1.89	3.69	5.07	6.73	50.11	
	1988	12.43	2.38	3.77	5.82	3.41	1.35	1.76	1.90	1.89	3.56	5.22	11.75	55.24	110.2
Hana Airport 355	Normal	9.47	7.93	8.85	7.14	5.70	3.82	5.28	5.78	4.85	6.48	8.16	6.76	80.22	
	1988	19.19	5.23	16.07	10.69	6.72	3.87	3.90	9.30	8.10	8.39	10.38	10.53	112.37	140.1
Kihei 311	Normal	3.67	1.76	2.03	.79	.27	.10	.15	.19	.07	.68	1.69	2.39	13.79	
	1988	2.14	+	+	.00	.00	.00	.00	+	.10	.32	3.10	11.25	16.91	122.6
Kula (HI65)	Normal	5.64	3.45	3.53	2.98	2.20	1.41	2.17	2.07	1.93	1.91	2.95	3.61	33.85	
	1988	1.50	.30	.80	.80	1.10	.00	.50	.30	2.60	1.40	6.00	11.20	26.50	78.3
Lahaina 361	Normal	3.70	1.65	2.04	.93	.48	.09	.21	.33	.23	.90	2.07	2.86	15.49	
	1988	M	.56	.14	.39	.00	.00	+	.14	+	1.06	2.79	9.77	14.85	95.9
Wailuku (HI66)	Normal	4.88	3.81	4.16	2.41	1.02	.43	.74	.77	.49	1.86	2.79	4.65	28.01	
	1988	11.10	1.50	2.00	2.50	1.20	.20	.40	.80	.10	3.20	3.40	10.90	37.30	133.2
ISLAND OF MOLOKAI															
Molokai Airport (MKK)	Normal	4.64	2.84	3.90	1.90	1.14	.48	.74	.76	.70	1.59	3.48	4.37	26.54	
	1988	6.40	1.00	+	.50	.20	.10	.30	.00	.50	.60	.20	.20	10.00	37.7
ISLAND OF OAHU															
Kahuku (HI09)	Normal	4.40	3.10	4.40	2.90	1.90	1.30	1.70	2.10	1.90	2.50	3.40	4.10	33.70	
	1988	3.00	.60	1.00	.60	1.90	.60	1.40	2.30	1.00	2.30	2.10	1.90	18.70	55.5
Waialua 847	Normal	4.99	3.65	3.84	2.32	1.34	.44	.95	1.26	.67	2.27	3.15	4.64	29.52	
	1988	9.51	1.48	1.66	2.40	1.91	.13	.67	1.42	1.80	.11	M	M	21.09	71.4
Waianae (HI17)	Normal	3.79	3.13	2.31	1.12	.61	.35	.38	.84	.77	1.87	1.81	2.66	19.64	
	1988	.90	.80	.60	.90	.00	.00	.00	+	.80	.50	1.90	4.40	10.80	55.0
Waimanalo Exp. 795.1	Normal	8.35	3.98	5.80	4.11	2.83	1.22	1.92	1.88	1.81	3.59	6.31	6.26	48.06	
	1988	16.23	3.95	4.10	1.64	2.51	.17	.77	1.41	1.18	1.40	4.62	7.47	45.45	94.6
Waipahu Sugar 750	Normal	5.00	2.71	3.20	1.88	1.20	.36	.76	.92	.84	2.04	3.35	4.09	26.35	
	1988	4.20	.44	1.56	.99	.91	.10	.40	.83	.64	.81	3.06	5.93	19.87	75.4

+ = Amount less than 0.05.
M = Incomplete.
Source: U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

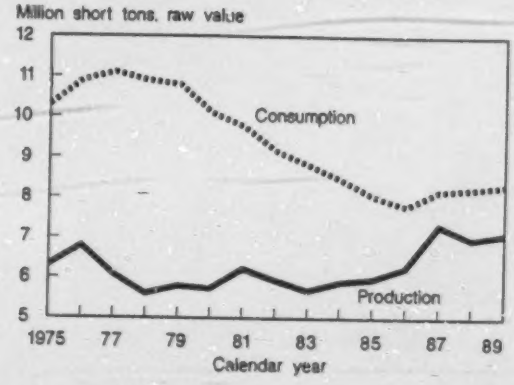
SUGARCANE

SUGARCANE: Number of farms, acreage, yield, production, price, and value, by islands, 1984-88[1]

Year	Farms[2]	Acreage		Yield per acre (cane)[3]	Production of cane for sugar	Farm price[3]	Value of cane for sugar[4]
		In crop[2]	Harvested for sugar				
	Number	1,000 acres		Tons	1,000 tons	Dollars per ton	Million dollars
				STATE			
1984	185	188.4	89.5	94.5	8,454	30.30	256.2
1985	155	187.9	83.0	95.4	7,916	28.10	222.4
1986	120	184.3	83.6	100.2	8,379	27.90	233.8
1987	100	181.1	79.5	100.8	8,014	27.20	218.0
1988	**75**	**176.5**	**78.9**	**96.4**	**7,606**	**27.60**	**209.9**
				HAWAII			
1984	174	70.9	33.6	101.8	3,420	27.50	94.0
1985	144	69.9	28.7	93.6	2,686	26.00	69.8
1986	109	69.1	28.7	97.5	2,797	26.50	74.1
1987	89	68.5	28.4	90.4	2,566	25.10	64.4
1988	**64**	**66.7**	**26.2**	**87.8**	**2,300**	**26.10**	**60.0**
				KAUAI			
1984	5	43.9	21.0	76.1	1,599	32.80	52.4
1985	5	43.7	21.0	85.8	1,802	29.60	53.3
1986	5	43.2	20.9	94.6	1,977	27.30	54.0
1987	5	43.0	18.5	103.4	1,912	26.80	51.2
1988	**5**	**41.9**	**20.2**	**99.5**	**2,009**	**25.80**	**51.8**
				MAUI			
1984	3	47.2	22.5	101.5	2,283	31.80	72.6
1985	3	47.2	22.4	98.6	2,208	28.80	63.6
1986	3	46.1	21.9	102.8	2,251	30.00	67.5
1987	3	43.9	20.9	107.0	2,236	29.90	66.9
1988	**3**	**42.2**	**21.1**	**100.9**	**2,128**	**31.10**	**66.2**
				OAHU			
1984	3	26.4	12.4	92.9	1,152	32.40	37.2
1985	3	27.1	10.9	111.9	1,220	29.30	35.7
1986	3	25.9	12.1	111.9	1,354	28.20	38.2
1987	3	25.7	11.7	111.1	1,300	27.30	35.5
1988	**3**	**25.7**	**11.4**	**102.5**	**1,169**	**27.30**	**31.9**

[1]Primary data source, Hawaiian Sugar Planters' Association.
[2]At end of year.
[3]Yield and farm price may not compute exactly due to rounding.
[4]Value of cane for sugar estimated by deducting processing and marketing costs from value of sugar and molasses. Processing costs based on toll charges paid by independent producers.

U.S. Sugar Production and Consumption



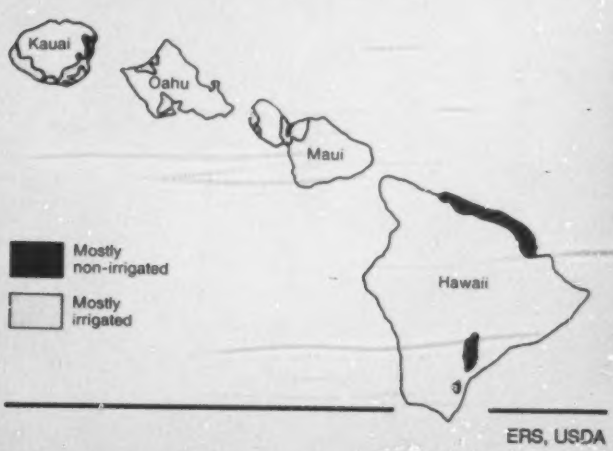
ERS, USDA

SUGAR: Production of raw sugar and molasses, price, and value, by islands, 1984-88[1]

Year	Mill production		Average returns received[3]		Value of production		
	Raw sugar 96°	Molasses[2]	Raw sugar 96°	Molasses[2]	Raw sugar 96°	Molasses[2]	Total
	1,000 tons		Dollars per ton		Million dollars		
				STATE			
1984	1,062	298	360	33.80	382.9	10.1	393.0
1985	1,012	256	328	34.80	331.9	8.9	340.8
1986	1,043	285	334	47.50	348.4	13.5	361.9
1987	979	272	332	39.90	325.0	10.9	335.9
1988	**928**	**267**	**337**	**41.70**	**312.9**	**11.1**	**324.0**
				HAWAII			
1984	391	109	360	33.20	140.6	3.6	144.2
1985	319	78	327	35.40	104.3	2.8	107.1
1986	329	85	333	48.50	109.6	4.1	113.7
1987	291	81	330	40.50	96.0	3.3	99.3
1988	**267**	**72**	**335**	**41.00**	**89.4**	**3.0**	**92.4**
				KAUAI			
1984	217	62	361	34.30	78.3	2.1	80.4
1985	242	61	328	35.10	79.4	2.1	81.5
1986	241	67	334	47.40	80.5	3.2	83.7
1987	229	65	334	39.70	76.5	2.6	79.1
1988	**228**	**73**	**338**	**42.50**	**77.1**	**3.1**	**80.2**
				MAUI			
1984	300	87	362	34.10	108.4	3.0	111.4
1985	290	83	328	34.60	95.1	2.9	98.0
1986	303	88	334	47.00	101.2	4.1	105.3
1987	300	87	332	39.40	99.6	3.4	103.0
1988	**292**	**81**	**338**	**41.20**	**98.7**	**3.3**	**102.0**
				OAHU			
1984	154	40	361	34.10	55.6	1.4	57.0
1985	161	34	330	33.60	53.1	1.1	54.2
1986	170	45	336	47.00	57.1	2.1	59.2
1987	159	39	333	40.10	52.9	1.6	54.5
1988	**141**	**41**	**338**	**42.70**	**47.7**	**1.7**	**49.4**

[1]Primary data source, Hawaiian Sugar Planters' Association.
[2]Commercial.
[3]Derived from production and value. State and island prices may not compute exactly due to rounding.

Hawaii's Sugar Islands



ERS, USDA

FLORICULTURE AND NURSERY PRODUCTS

FLORICULTURE AND NURSERY PRODUCTS: State of Hawaii, 1984-88

Commodity	Farms having sales[1]					Production area				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Number					1,000 square feet				
Selected cut flowers:										
Anthuriums	205	195	175	167	156	19,967	19,635	19,158	18,640	17,100
Birds of Paradise	50	61	46	55	38	NA	NA	827	2,283	2,520
Carnations, miniature [2]	NA	NA	9	11	8	NA	NA	139	125	175
Carnations, standard	12	16	12	9	8	NA	NA	206	145	105
Chrysanthemums, pompon	14	14	14	13	10	NA	NA	536	547	410
Chrysanthemums, other	1	4	5	5	[3]	NA	NA	87	92	[3]
Ginger, pink [4]	NA	NA	NA	NA	51	NA	NA	NA	NA	1,640
Ginger, red	60	65	52	88	93	NA	NA	2,265	3,759	4,200
Gingers, other [5]	NA	NA	19	41	26	NA	NA	610	1,341	945
Heliconias [6]	NA	34	58	78	83	NA	NA	3,006	4,992	6,620
Proteas	30	35	18	37	43	5,184	5,445	3,964	5,174	5,940
Roses, Sweetheart [7]	NA	NA	6	6	6	NA	NA	153	155	130
Roses, Tea	8	10	9	11	13	NA	NA	825	855	890
Other	75	71	36	31	32	NA	NA	NA	NA	NA
Orchids:										
Cut:										
Cattleyas	21	25	14	19	12	NA	NA	42	67	62
Cymbidiums	17	18	16	19	14	NA	NA	409	542	485
Sprays:										
Dendrobiums	71	74	60	72	83	1,900	2,488	2,585	2,323	2,530
Other [8]	29	26	16	16	6	NA	NA	NA	NA	NA
Potted:										
Dendrobiums [9]	84	88	52	86	76	564	872	744	670	1,110
Other	71	71	49	72	69	NA	NA	571	742	815
Flowers for individual and lei flower use:										
Carnations	20	19	19	18	17	NA	NA	NA	NA	NA
Vanda, Miss Joaquim	28	31	21	27	24	NA	NA	NA	NA	NA
Plumerias	17	22	19	19	18	NA	NA	NA	NA	NA
Tuberoses	6	8	6	6	6	NA	NA	NA	NA	NA
Dendrobiums	37	44	42	42	40	NA	NA	NA	NA	NA
Pikake	15	20	18	10	12	NA	NA	NA	NA	NA
Other	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Foliage:										
Potted:										
Primarily for indoor or patio use [11]	85	110	73	102	86	NA	NA	5,809	7,824	6,210
Primarily for landscape use	45	45	35	34	47	NA	NA	NA	NA	NA
Unfinished Stock (for further growing on)	20	29	25	24	55	NA	NA	NA	NA	NA
Cut:										
Ti leaves	54	53	37	46	51	NA	NA	NA	1,751	2,740
Other greens	40	51	36	39	43	NA	NA	NA	NA	NA
Potted flowering plants:										
Anthuriums	17	18	10	15	20	NA	NA	NA	112	110
Chrysanthemums	10	13	13	13	12	NA	263	243	272	230
Poinsettias	29	38	29	34	39	NA	449	424	449	515
Other	38	41	37	62	60	NA	NA	NA	NA	NA
Ornamentals & trees	42	40	34	42	62	NA	NA	NA	NA	NA
Plant rentals [12]	NA	NA	NA	NA	41	NA	NA	NA	NA	NA
Other nursery products [13]	102	74	54	88	118	NA	NA	NA	NA	NA
Total	670	675	635	670	675					

See footnotes at end of table.

Continued

FLORICULTURE AND NURSERY PRODUCTS: State of Hawaii, 1984-88 -- Continued

Commodity	Number sold					Value of sales				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
						1,000 dollars				
Selected cut flowers: (000 dozens)										
Anthuriums	2,335	2,305	2,335	2,072	1,822	7,351	7,645	9,878	8,652	8,022
Birds of Paradise	51	35	78	58	77	186	213	325	311	378
Carnations, miniature (000 bunches) [2]	NA	NA	85	100	127	NA	NA	179	239	337
Carnations, standard	91	151	41	42	37	219	326	133	107	105
Chrysanthemums, pompon (000 bunches)	457	455	353	435	404	690	833	547	697	593
Chrysanthemums, other	5	5	13	11	[3]	20	23	76	80	[3]
Ginger, pink [4]	NA	NA	NA	NA	90	NA	NA	NA	NA	658
Ginger, red	82	78	85	125	131	267	246	355	560	606
Gingers, other [5]	NA	NA	50	62	14	NA	NA	282	485	113
Heliconias [6]	NA	31	77	161	206	NA	125	391	1,427	1,364
Proteas (000 stems)	1,052	975	983	1,513	1,488	470	639	656	963	1,214
Roses, Sweetheart [7]	NA	NA	95	56	87	NA	NA	215	219	281
Roses, Tea	453	645	548	461	609	1,556	1,956	1,972	1,950	2,647
Other	NA	NA	NA	NA	NA	1,162	1,155	672	820	1,247
Orchids:										
Cut: (000 flowers)										
Cattleyas	48	54	31	50	36	41	66	31	56	33
Cymbidiums	552	530	367	369	297	213	170	165	192	150
Sprays: (000 dozens)										
Dendrobiums	208	291	314	378	417	1,278	1,687	2,115	2,352	2,639
Other [8]	NA	NA	NA	NA	NA	145	54	40	60	57
Potted: (000 pots)										
Dendrobiums [9]	208	201	[10]265	641	481	854	1,061	1,169	2,208	2,019
Other	375	365	310	1,115	375	1,836	2,263	2,161	2,159	2,266
Flowers for individual and lei flower use: (Million blooms)										
Carnations	33.6	31.0	25.3	26.6	23.3	1,112	1,149	935	967	972
Vanda, Miss Joaquim	25.0	24.0	26.1	23.3	31.1	980	1,015	899	708	888
Plumerias	25.4	21.8	24.4	25.3	25.2	484	432	422	413	433
Tuberoses	28.0	36.0	38.0	95.5	43.6	720	1,149	1,075	2,433	1,198
Dendrobiums	10.5	18.0	18.0	17.9	19.8	314	458	488	500	536
Pikake (000 strands)	110.0	134.0	180 0	122.4	128.0	160	220	258	175	189
Other [5]	NA	NA	NA	NA	NA	NA	NA	183	151	393
Foliage:										
Potted:										
Primarily for indoor or patio use [11]	NA	NA	NA	NA	NA	10,050	12,019	12,931	13,330	12,424
Primarily for landscape use	NA	NA	NA	NA	NA	1,245	1,812	2,215	2,302	4,751
Unfinished Stock (for further growing on)	NA	NA	NA	NA	NA	1,525	1,845	2,031	1,496	1,795
Cut:										
Ti leaves (Million leaves)	13.3	12.7	12.7	15.0	12.0	507	491	534	636	733
Other greens	NA	NA	NA	NA	NA	355	309	237	191	369
Potted flowering plants: (000 pots)										
Anthuriums	52	90	76	150	99	125	158	102	229	352
Chrysanthemums	278	240	289	309	233	957	779	835	966	781
Poinsettias	139	192	190	219	227	453	618	636	733	813
Other	NA	NA	NA	NA	NA	404	479	607	813	1,094
Ornamentals & trees	NA	NA	NA	NA	NA	915	603	628	2,015	2,226
Plant rentals [12]	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,373
Other nursery products [13]	NA	NA	NA	NA	NA	2,311	2,164	2,754	3,136	2,596
Total						38,905	44,162	49,132	54,731	59,646

NA = Not available. [1]Number for each individual flower item is count of those having sales of that item during each year; "Total" is unduplicated count. [2]Prior to 1986, included with "Carnations". [3]Included with "Other" cut flowers to avoid disclosure of individual operations. [4]Prior to 1988, included with "Other Gingers". [5]Prior to 1986, included with "All other nursery products". [6]Prior to 1985, included with "Other" cut flowers. [7]Prior to 1986, included with "Roses". [8]Includes vanda hybrids, phalaenopsis, and cypripediums. [9]Includes community pots. [10]Revised. [11]Includes hanging baskets. [12]Prior to 1988, included with "All other nursery products". [13]Includes bedding plants and other flowers or nursery products not elsewhere classified.

FLORICULTURE AND NURSERY PRODUCTS

FLORICULTURE AND NURSERY PRODUCTS: Hawaii Island, 1984-88

Commodity	Number sold					Value of sales				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
						1,000 dollars				
Selected items:										
Anthuriums, cut (000 dozens)	2,250	2,185	2,250	1,988	1,737	7,062	7,246	9,552	8,321	7,678
Cymbidiums (000 flowers)	545	525	363	384	287	206	162	162	188	143
Foliage, cut	NA	NA	NA	NA	NA	580	533	391	509	783
Foliage, potted (indoor/patio use)	NA	NA	NA	NA	NA	4,275	5,653	5,740	5,956	6,609
Ginger, red (000 dozens)	NA	NA	NA	54	60	NA	NA	NA	214	227
Heliconias (000 dozens)	NA	NA	23	52	92	NA	NA	126	373	454
Orchids, potted (000 pots)	94	147	322	504	355	721	914	1,179	1,955	1,805
Ornamentals and trees	NA	NA	NA	NA	NA	75	100	236	382	398
Poinsettias (000 pots)	14	19	21	24	28	NA	NA	NA	NA	101
Unfinished stock and cuttings	NA	NA	NA	NA	NA	250	370	225	137	141
Vanda, Miss Joaquim (million flowers)	24.0	23.0	25.2	16.5	24.0	950	985	877	473	607
All other flowers and nursery products[1]	NA	NA	NA	NA	NA	2,825	3,642	4,309	5,160	10,110
Total						16,944	19,605	22,797	23,668	29,036

NA = Not available.

[1]Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rentals, etc., for the island are included in the "All other" category.

FLORICULTURE AND NURSERY PRODUCTS: Kauai Island, 1984-88

Commodity	Number sold					Value of sales				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
						1,000 dollars				
Selected items:										
Heliconias (000 dozens)	NA	NA	NA	1	4	NA	NA	NA	6	28
Ornamentals and trees	NA	NA	NA	NA	NA	NA	NA	NA	20	103
All other flowers and nursery products[1]	NA	NA	NA	NA	NA	788	1,179	1,146	1,209	1,818
Total						788	1,179	1,146	1,235	1,949

NA = Not available.

[1]Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rentals, etc., for the island are included in the "All other" category.

FLORICULTURE AND NURSERY PRODUCTS: Maui/Molokai Islands, 1984-88

Commodity	Number sold					Value of sales				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
						1,000 dollars				
Selected items:										
Carnations, heads (million flowers)	32.0	29.0	21.7	22.1	18.7	1,065	1,060	917	840	810
Gingers (000 dozens)	NA	NA	NA	59	56	NA	NA	297	480	424
Heliconias (000 dozens)	NA	NA	30	58	55	NA	NA	159	490	413
Ornamentals and trees	NA	NA	NA	NA	NA	NA	NA	NA	79	545
Proteas (000 stems)	972	747	932	1,064	1,293	437	564	545	810	1,079
All other flowers and nursery products[1]	NA	NA	NA	NA	NA	3,044	3,564	3,426	3,964	3,986
Total						4,546	5,188	5,244	6,663	7,257

NA = Not available.

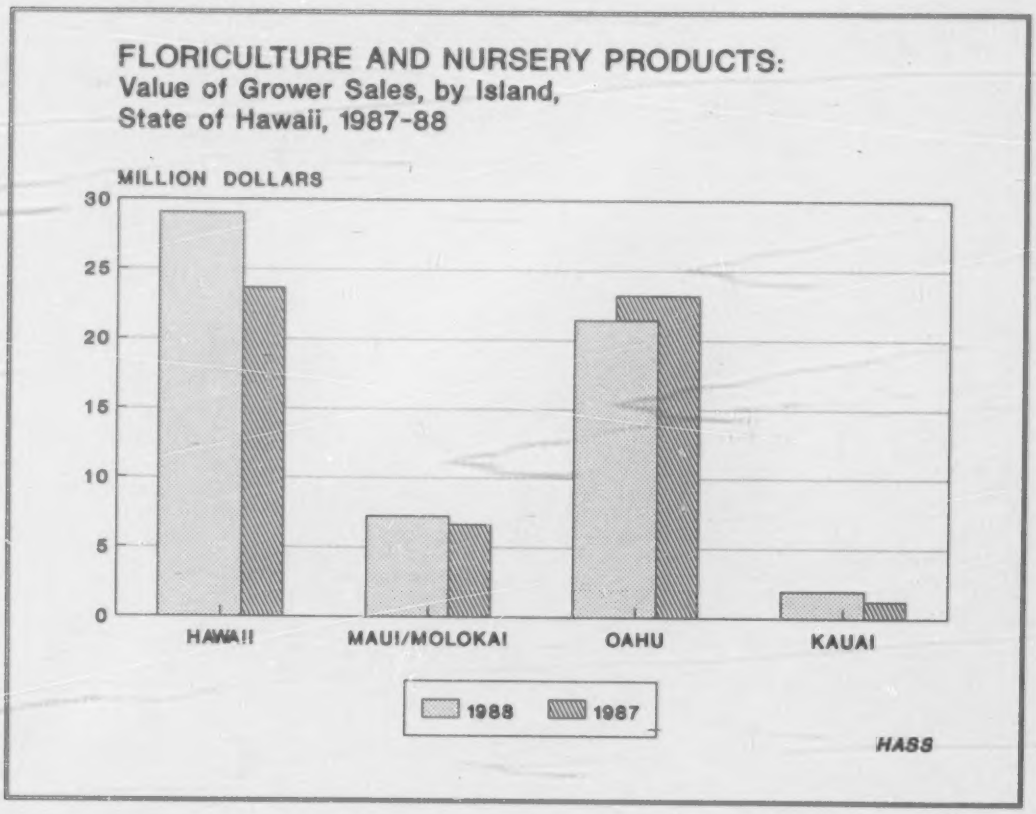
[1]Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rentals, etc., for the islands are included in the "All other" category.

FLORICULTURE AND NURSERY PRODUCTS: Oahu Island, 1984-88

Commodity	Number sold					Value of sales				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
						1,000 dollars				
Selected items:										
Anthuriums, cut (000 dozens)	80	80	81	77	77	276	280	316	304	305
Cattleyas (000 flowers)	41	46	28	39	31	37	56	28	41	28
Chrysanthemums, pompon (000 bunches)	315	287	218	299	368	440	503	283	416	510
Chrysanthemums, potted (000 pots)	81	92	92	72	74	265	294	218	215	215
Dendrobiums, sprays (000 dozens)	162	215	196	187	213	1,001	1,115	1,375	1,247	1,413
Dendrobiums, for lei (million flowers)	6.5	10.4	11.0	10.9	10.0	190	253	305	321	289
Foliage, cut	NA	NA	NA	NA	NA	270	258	242	210	238
Foliage, potted (indoor/patio use)	NA	NA	NA	NA	NA	5,100	5,731	6,615	6,940	4,507
Ginger, red (000 dozens)	53	50	54	56	58	178	135	221	263	307
Gingers, other (000 dozens)	NA	NA	5	8	28	6	10	20	37	239
Heliconias (000 dozens)	NA	NA	24	50	55	NA	NA	105	558	469
Orchids, potted (000 pots)	473	368	410	1,217	459	1,838	2,174	2,214	2,178	2,204
Pikake (000 strands)	110	105	112	65	53	160	157	154	96	87
Plumerias (million flowers)	9.4	7.7	8.4	8.7	9.1	154	148	148	144	129
Unfinished stock and cuttings	NA	NA	NA	NA	NA	1,020	655	905	748	965
All other flowers and nursery products[1]	NA	NA	NA	NA	NA	5,692	6,421	6,796	9,445	9,499
Total						16,627	18,190	19,945	23,165	21,404

NA = Not available.

[1]Only selected items are shown separately. All other cut and lei flowers, potted plants, nursery products, plant rentals, etc., for the island are included in the "All other" category.



FLORICULTURE AND NURSERY PRODUCTS

FLORICULTURE AND NURSERY PRODUCTS: Number of farms and growing area, by islands, 1984-88

Year	Farms	Greenhouse[1]	Artificial shade	Natural shade	Open field	Total area
	Number	1,000 square feet	1,000 square feet	Acres		
STATE						
1984	670	2,414	26,817	92	959	1,721
1985	675	2,836	29,643	91	924	1,761
1986	635	2,535	27,610	70	905	1,667
1987	670	3,314	27,394	55	1,080	1,840
1988	**675**	**4,690**	**23,800**	**70**	**1,109**	**1,833**
HAWAII						
1984	315	1,195	19,264	83	446	998
1985	310	1,439	19,087	82	413	966
1986	300	1,360	19,330	70	420	965
1987	320	1,670	19,983	55	450	1,002
1988	**325**	**2,603**	**18,624**	**65**	**541**	**1,094**
KAUAI						
1984	25	13	178	4	30	38
1985	30	12	244	5	26	37
1986	25	5	270	–	25	31
1987	30	25	260	–	40	47
1988	**35**	**47**	**195**	**–**	**45**	**50**
MAUI/MOLOKAI						
1984	80	276	905	–	250	277
1985	85	307	1,286	–	259	296
1986	75	240	900	–	180	207
1987	90	340	760	–	270	295
1988	**85**	**307**	**432**	**4**	**266**	**287**
OAHU						
1984	250	930	6,470	5	233	408
1985	250	1,078	9,026	4	226	462
1986	235	930	7,110	–	280	464
1987	230	1,279	6,391	–	320	496
1988	**230**	**1,733**	**4,549**	**1**	**257**	**402**

– = Less than 1/2 acre.
[1]Glass or glass substitute structure.

FLORICULTURE AND NURSERY PRODUCTS: Out-of-State sales, State of Hawaii, 1984-88

Commodity	1984	1985	1986	1987	1988
			1,000 dollars[1]		
Anthuriums, cut	7,050	7,581	8,653	9,170	8,816
Birds of Paradise	[2]	175	415	425	574
Foliage, cut:	670	550	858	1,010	[3]
Ti leaves	NA	NA	NA	NA	687
Other cut greens	NA	NA	NA	NA	712
Foliage, potted	8,650	9,550	9,782	8,935	8,609
Ginger, red	240	270	565	705	1,104
Gingers, other	[2]	[2]	265	365	636
Heliconias	[2]	150	735	1,270	1,757
Orchids, cut:					
Cattleyas	115	232	456	163	367
Cymbidiums	121	155	108	136	117
Dendrobiums, sprays	846	1,031	1,444	1,840	2,196
Orchids, potted:					
Dendrobiums	459	645	653	2,040	1,112
Other orchids	1,051	1,285	1,186	1,200	1,416
Proteas	550	560	704	1,003	1,091
Unfinished potted foliage stock	750	1,160	740	575	831
All other flowers and nursery products	1,108	940	1,572	3,067	3,017
Total	21,610	24,284	28,136	31,904	33,042

NA = Not available.
[1]Based on F.O.B. island value. Includes both wholesale and retail sales. Does not include sales of cut flowers, leis, etc., purchased within the State and hand carried out.
[2]Not shown separately.
[3]Breakdown between ti leaves and other cut greens began in 1988.

ANTHURIUMS: Mainland and foreign shipments from the Island of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
							1,000 dozens						
Mainland:													
1984	67.0	92.6	61.8	67.6	76.4	74.8	59.2	65.9	60.9	66.4	75.9	97.9	866.4
1985	70.1	93.0	62.9	66.9	81.6	65.7	71.0	80.0	79.0	80.0	84.0	118.0	952.2
1986	83.0	105.0	80.0	91.0	101.0	84.0	84.0	89.0	95.0	89.0	85.5	110.0	1,096.5
1987	84.0	101.8	81.0	86.9	88.8	79.7	98.4	81.2	85.0	77.0	77.0	94.9	1,035.7
1988	65.8	84.0	68.5	75.0	78.5	68.4	62.2	64.3	63.4	60.8	61.6	74.7	827.2
Foreign:													
1984	55.9	53.5	62.3	74.1	79.1	77.7	67.3	101.0	85.4	113.6	67.6	57.5	895.0
1985	31.0	28.4	29.7	30.6	53.7	51.7	74.1	82.5	74.0	94.2	57.2	51.9	659.0
1986	36.1	18.9	29.9	41.0	62.3	62.9	89.2	100.1	82.9	99.3	59.9	52.0	734.5
1987	23.4	15.5	22.8	34.9	41.0	54.5	76.7	54.3	52.3	53.5	34.3	32.3	495.5
1988	15.7	11.9	21.3	35.6	32.8	47.6	42.4	38.8	30.4	23.3	23.4	18.2	341.4
Total shipments:[1]													
1984	122.9	146.1	124.1	141.7	155.5	152.5	126.5	166.9	146.3	180.0	143.5	155.4	1,761.4
1985	101.1	121.4	92.6	97.5	135.3	117.4	145.1	162.5	153.0	174.2	141.2	169.9	1,611.2
1986	119.1	123.9	109.9	132.0	163.3	146.9	173.2	189.1	177.9	188.3	145.4	162.0	1,831.0
1987	107.4	117.3	103.8	121.8	129.8	134.2	175.1	135.5	137.3	130.5	111.3	127.2	1,531.2
1988	81.5	95.9	89.8	110.6	111.3	116.0	104.6	103.1	93.8	84.1	85.0	92.9	1,168.6

[1]Sum of mainland and foreign may not add to total shipments due to rounding.

ANTHURIUMS

ANTHURIUMS: Mainland shipments, percent of flowers sold by size, Hawaii Island 1984-88

Year	Miniature	Small	Medium	Large	Extra-large
1984	23	25	30	19	3
1985	21	23	31	21	4
1986	21	24	30	20	5
1987	19	25	30	20	6
1988	22	24	28	19	7

ANTHURIUMS: Foreign shipments, by destination, Hawaii Island, 1984-88

Destination	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 dozens												
Australia:													
1984	1.2	3.2	2.7	3.4	5.3	2.8	3.5	3.5	3.0	2.9	2.6	2.6	36.9
1985	.9	1.5	.6	.7	1.7	.2	.6	.2	.1	–	–	–	6.5
1986-88[1]													
Hong Kong:													
1984	1.6	.7	2.2	.7	.8	.7	1.0	.7	.7	.9	.8	.8	11.6
1985	.7	1.3	.8	.8	1.0	.9	1.2	1.1	2.1	1.4	1.2	1.6	14.1
1986	2.4	1.4	1.2	1.6	1.5	1.6	2.0	1.5	2.0	1.8	1.4	1.5	19.9
1987	2.3	1.2	1.5	1.0	1.2	1.5	1.4	1.3	2.3	1.1	.8	.6	16.2
1988	.6	.8	.6	.3	.4	.3	.3	.4	.3	.3	.3	.2	4.8
Italy:													
1984	26.5	28.6	27.2	33.4	27.3	23.0	16.9	34.2	32.3	59.7	25.8	26.0	360.9
1985	15.9	12.3	13.8	10.3	16.1	12.3	11.6	15.9	18.3	42.7	13.6	15.3	198.1
1986	15.3	8.1	14.4	12.4	14.1	12.5	15.3	16.1	21.2	45.1	13.2	15.2	202.9
1987	11.1	6.4	8.8	14.5	11.7	10.1	12.4	11.1	10.4	21.3	8.0	7.9	133.7
1988	5.2	4.1	5.2	9.1	4.9	7.5	5.5	9.1	3.6	3.9	3.4	3.5	65.0
Japan:													
1984	13.6	4.5	20.2	25.4	34.6	44.5	43.0	56.8	41.4	40.6	29.8	18.0	372.4
1985	6.1	3.5	8.9	15.1	26.9	35.1	58.3	62.5	47.7	45.8	37.8	29.3	377.0
1986	10.9	6.1	12.1	23.2	44.0	47.1	70.9	81.0	56.4	48.4	43.0	32.5	475.6
1987	9.3	5.3	12.0	18.1	27.5	42.1	61.9	40.6	37.1	28.5	23.2	21.9	327.5
1988	8.7	5.7	13.8	24.0	25.9	38.8	36.0	28.2	25.9	17.8	18.8	14.0	257.6
Switzerland:													
1984	7.4	12.8	7.6	8.8	8.3	5.1	.6	3.6	5.7	7.9	6.2	8.1	82.1
1985	5.2	7.0	3.4	1.7	5.2	1.3	.4	.6	3.4	1.3	1.8	3.1	34.4
1986	.7	.9	.6	3.1	1.8	1.1	.7	1.1	2.8	2.7	1.5	1.5	18.5
1987	.2	2.3	.5	1.3	.5	.5	.6	.4	2.1	2.1	1.6	1.0	13.1
1988	.5	1.1	.7	.9	.4	.8	.4	.8	.4	.7	.8	.4	7.5
All other:													
1984	5.6	3.7	2.4	2.4	2.8	1.6	2.3	2.2	2.3	1.6	2.2	2.0	31.1
1985	2.2	2.8	2.2	2.0	2.8	1.9	2.0	2.2	2.4	3.0	2.8	2.6	28.9
1986	6.8	2.4	1.6	.7	.9	.6	.3	.4	.5	1.3	.8	1.3	17.6
1987	.5	.3	–	–	.1	.3	.4	.9	.4	.5	.7	.9	5.0
1988	.7	.2	1.0	1.3	1.2	.4	.2	.5	.2	.6	.1	.1	6.5

– = Negligible.
[1]Included in "All other" category.

ANTHURIUMS: Production area, by islands, 1984-88

Year	Artificial shade[1]	Natural shade	Total area
	1,000 square feet		
		STATE	
1984	16,446	3,521	19,967
1985	16,196	3,439	19,635
1986	16,144	3,014	19,158
1987	16,160	2,480	18,640
1988	14,250	2,850	17,100
		HAWAII	
1984	16,000	3,500	19,500
1985	15,750	3,400	19,150
1986	15,750	3,000	18,750
1987	15,730	2,470	18,200
1988	13,698	2,832	16,530
		KAUAI	
1984	23	17	40
1985	25	26	51
1986	[2]27	[2]10	[2]37
1987	[2]	[2]	[2]
1988			
		MAUI/MOLOKAI	
1984	23	4	27
1985	6	13	19
1986	[2]2	[2]4	[2]6
1987	[2]	[2]	[2]
1988			
		OAHU	
1984	400	–	400
1985	415	–	415
1986	365	–	365
1987	330	[2]	330
1988	350	[2]	350

– = Less than 500 square feet.
[1]Includes saran and rigid type greenhouses.
[2]Included in State total to avoid disclosure of individual operations.

DENDROBIUM ORCHIDS: Sales and value, 1984-88

Year	Individual blossoms		Cut sprays		Potted plants				Total value
					In bud/bloom		Community pots		
	Number sold	Value	Number sold	Value	Number sold	Value	Number sold	Value	
	Million blooms	1,000 dollars	1,000 dozens	1,000 dollars	1,000 pots	1,000 dollars	1,000 pots	1,000 dollars	1,000 dollars
					STATE[1]				
1984	10.5	314	208	1,278	185	709	23	145	2,446
1985	18.0	458	291	1,687	146	802	55	259	3,206
1986	18.0	488	314	2,115	235	982	30	187	[2]4,051
1987	17.9	500	378	2,352	610	2,037	31	171	5,060
1988	19.8	536	417	2,639	447	1,841	34	178	5,194
					OAHU				
1984	6.5	190	162	1,001	136	476	22	132	1,799
1985	10.4	253	215	1,115	100	492	52	242	2,102
1986	11.0	305	196	1,375	106	505	29	181	[2]2,644
1987	10.9	321	187	1,247	216	915	28	157	2,640
1988	10.0	289	213	1,413	182	755	15	77	2,534

[1]Hawaii, Kauai, and Maui combined in State total to avoid disclosure of individual operations.
[2]Includes value of liners not shown separately.

DENDROBIUMS

DENDROBIUM ORCHIDS (POTTED PLANTS): Production area, 1984-88

Year	Glass or glass substitute	Saran	Natural shade or open field	Total	Intentions next year	Percent of current year
	1,000 square feet					
	STATE					
1984	105	407	52	564	578	102
1985	254	466	152	872	1,022	117
1986	107	589	48	744	685	92
1987	230	420	20	670	900	134
1988	**200**	**870**	**40**	**1,110**	**1,030**	**93**
	OAHU					
1984	30	300	21	351		
1985	130	350	17	497		
1986	26	392	48	466		
1987	60	375	22	457		
1988	**43**	**511**	**26**	**580**		

DENDROBIUM ORCHIDS (CUT SPRAYS AND BLOSSOMS): Production area, 1984-88

Year	Glass or glass substitute	Saran	Natural shade or open field	Total	Intentions next year	Percent of current year
	1,000 square feet					
	STATE					
1984	295	1,574	31	1,900	2,647	139
1985	245	2,212	31	2,488	2,800	113
1986	281	2,239	65	2,585	2,900	112
1987	225	1,988	110	2,323	2,890	124
1988	**220**	**2,495**	**80**	**2,795**	**2,955**	**106**
	OAHU					
1984	125	1,385	18	1,528		
1985	125	1,700	18	1,843		
1986	46	1,515	13	1,574		
1987	100	1,290	18	1,408		
1988	**40**	**1,280**	**35**	**1,355**		

DENDROBIUM ORCHIDS: Out-of-State sales, 1984-88

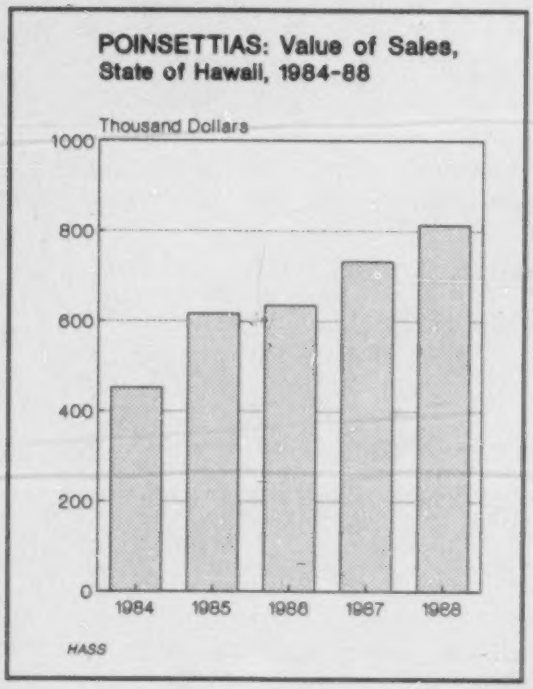
Year	Cut sprays		Potted plants[1]		Total value
	Number	Value	Number	Value	
	1,000 Dozens	1,000 Dollars	1,000 Pots	1,000 Dollars	
1984	120	846	85	459	1,305
1985	152	1,031	107	645	1,676
1986	214	1,444	159	653	2,097
1987	244	1,840	469	2,040	3,880
1988	**323**	**2,196**	**253**	**1,112**	**3,308**

[1]Includes community pots.

POINSETTIAS: Number of growers, pots sold by size, and value, 1984-88

Year	Growers	Pots sold by size				Value
		Under 5 inches	5-6 1/2 inches	All other sizes[1]	Total	
	Number					Dollars
	STATE					
1984	29	26,000	107,000	6,000	139,000	453,000
1985	38	27,000	151,000	14,000	192,000	618,000
1986	29	44,000	131,000	15,000	190,000	636,000
1987	34	44,000	162,000	13,000	219,000	733,000
1988	**39**	**57,000**	**170,000**	**--**	**227,000**	**813,000**

– = Less than 1,000.
[1]Includes hanging baskets.



POINSETTIAS: Percent of flowers grown by type of growing area, 1984-88

Year	Saran	Glass or glass substitute	Open field
1984	26	40	34
1985	20	39	41
1986	23	39	38
1987	24	45	31
1988	**29**	**40**	**31**

POINSETTIAS: Percent of flowers grown by varieties, 1984-88

Year	C-1	V-10	V-14	Others
1984	16	54	20	10
1985	15	59	16	10
1986	19	59	11	11
1987	23	60	6	11
1988	**7**	**64**	**8**	**21**

POINSETTIAS: 1988 intentions, with comparisons

Year	Grower intentions spring of year	Pots set[1]	Pots sold
		Number	
1984	NA	210,000	139,000
1985	NA	231,000	192,000
1986	NA	225,000	190,000
1987	NA	223,000	219,000
1988	**234,000**	**251,000**	**227,000**

NA = Not available.
[1]Includes small pots eventually used for hanging baskets and counted as only one pot.

GINGER ROOT

GINGER ROOT: Acreage, yield, production, price, and value, State of Hawaii, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
1984	135	37.4	5,050	45.1	2,280
1985	125	43.4	5,425	82.3	4,465
1986	145	40.7	5,900	81.0	4,779
1987	215	46.7	10,050	45.0	4,523
1988	**165**	**49.1**	**8,100**	**62.0**	**5,022**

GINGER ROOT: U. S. imports by product type, 1984-88

Product form	1984	1985	1986	1987	1988
	1,000 pounds				
Unground	9,189	12,344	11,541	10,245	10,069
Candied, glace, etc.	633	644	441	526	545
Ground, not candied	73	57	64	499	220
Total	**9,895**	**13,045**	**12,046**	**11,270**	**10,834**

Source: Economic Research Service, U. S. Department of Agriculture.

FEED CROPS

FEED CROPS: Acreage, production and value, State of Hawaii, 1984-88[1]

Year	Acreage harvested	Production	Value[2]
	Acres	1,000 tons	1,000 dollars
1984	8,993	20.9	912
1985	5,542	30.6	3,028
1986	2,317	16.0	1,155
1987	2,767	9.5	887
1988	**4,021**	**8.8**	**803**

[1]Includes grains, grass and legume crops, and pineapple green chop.
[2]Includes value of production used on farm where produced.

SEED CORN

SEED CORN: Number of farms, acreage used for crop, acreage harvested, outshipments, and value, State of Hawaii, 1984-88

Crop year November-June	Farms	Acreage used for crop	Acreage harvested			Outshipments of seed	Value
			Nursery	Observation	Seed increase		
	Number	Acres				1,000 pounds	1,000 dollars
1984-85	7	870	395	145	330	500	5,150
1985-86	7	840	430	160	250	620	5,170
1986-87	7	800	420	125	255	535	5,070
1987-88	7	970	455	80	435	810	6,060
1988-89	**7**	**1,090**	**435**	**75**	**580**	**1,010**	**6,620**

AVOCADOS

AVOCADOS: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1984-88

Year	Farms	Acreage[1]		Yield per acre (bearing)	Production	Farm price	Value of sales
		In crop	Bearing				
	Number	Acres		1,000 pounds		Cents per pound	1,000 dollars
1984	165	505	270	4.3	1,150	25.9	298
1985	160	525	320	3.8	1,220	24.5	299
1986	160	540	330	3.9	1,300	25.6	333
1987	145	500	300	3.0	900	31.5	284
1988.....	**145**	**580**	**290**	**4.1**	**1,200**	**36.5**	**438**

[1]At end of year.

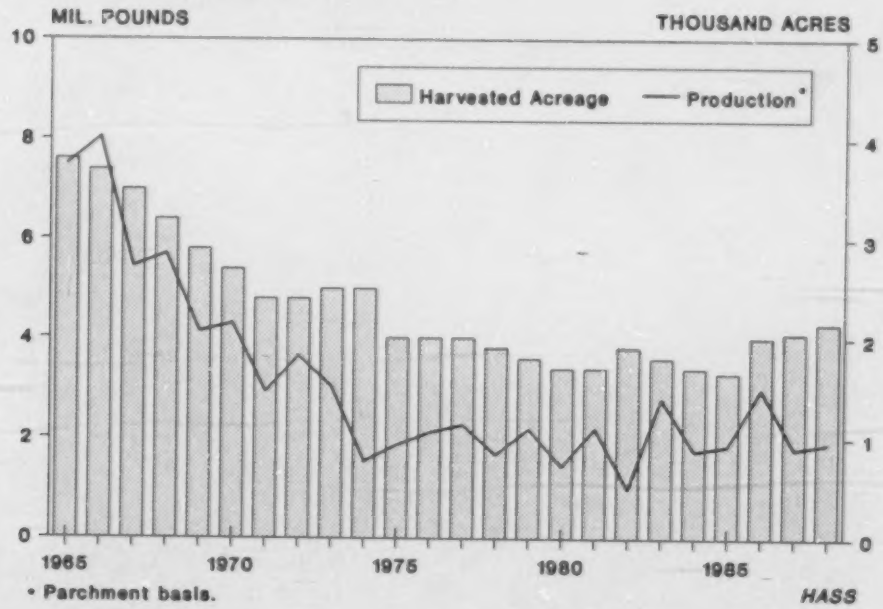
COFFEE

COFFEE: Number of farms, acreage, yield, marketings, price, and value, State of Hawaii, 1984-88

Year[1]	Farms	Acreage		Marketings - parchment equivalent[2]				Green production
		In crop	Harvested	Yield per harvested acre	Marketings	Farm price	Value of sales	
	Number	Acres		1,000 pounds		Dollars per pound	1,000 dollars	1,000 pounds
1984-85.....	615	2,000	1,700	1.0	1,750	2.75	4,813	NA
1985-86.....	620	2,100	1,650	1.1	1,850	2.80	5,180	1,535
1986-87.....	620	2,300	2,000	1.5	3,000	2.90	8,700	2,400
1987-88.....	630	2,400	2,050	0.9	1,800	2.70	4,860	1,400
1988-89 ...	**635**	**2,600**	**2,150**	**0.9**	**2,000**	**3.30**	**6,600**	**1,600**

[1]Harvesting normally begins in September and extends to the early part of the following year.
[2]Coffee marketed in cherry form was converted to an equivalent parchment weight and added to parchment marketings to obtain total marketing.

COFFEE: Acreage and Production,
State of Hawaii, 1965-88



* Parchment basis.

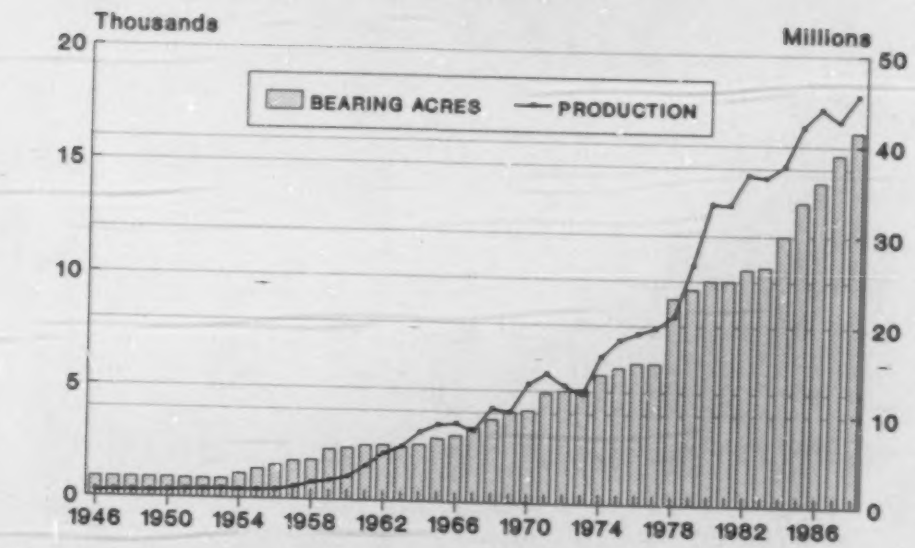
CENTURY OLD IMPORT MAKES IT'S MARK...

More than a hundred years after it's introduction to Hawaii, the macadamia nut industry has developed to the point where it now occupies a prominent position in the State's agriculture.

Status as a premier nut, Hawaii's ideal growing conditions, research, and advanced processing technology have all combined to help make macadamia nuts the third most important agricultural commodity in the State, exceeded only by sugar and pineapple.

Introduced to Hawaii from Australia in 1881, by William Herbert Purvis, the macadamia nut has grown into an industry that in 1988 had over 650 growers, orchards that covered nearly 22,000 acres, production that exceeded 45.0 million pounds (net, wet in-shell), and farm level receipts of over $40 million. Hawaii has the distinction of being the world's leader in both the growing and processing of macadamia nuts. Although that status is still secure, foreign competition is steadily increasing as evidenced by the increasing quantities of macadamia nuts (mostly raw kernels) imported into the United States each year (reliable estimates of foreign production are unavailable).

PRODUCTION AND HARVESTED ACREAGE
MACADAMIA NUTS, STATE OF HAWAII
1946-1988 SEASONS



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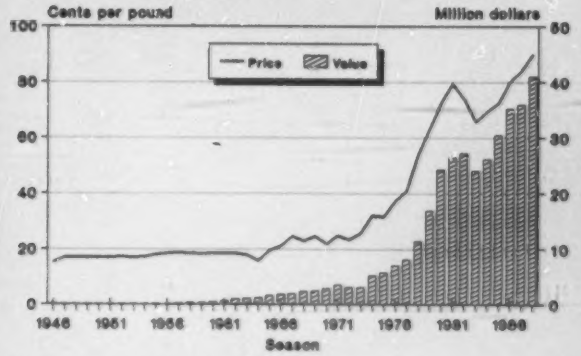
MACADAMIA NUTS:
FARM PRICE (NET, WET IN-SHELL) AND
VALUE OF PRODUCTION, 1946-1988 SEASONS

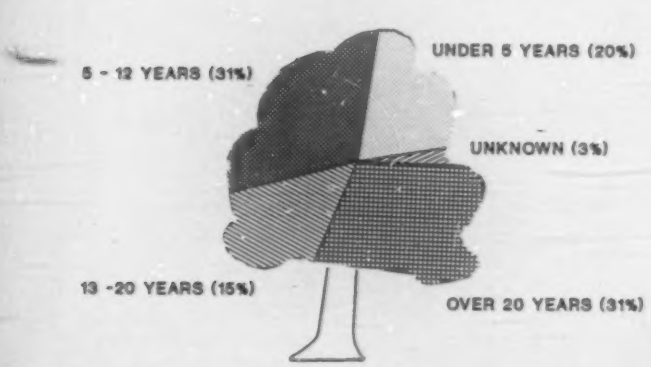


MACADAMIA NUTS: Number of farms, acreage, yield, production, marketings, farm prices and value, 1984-88 seasons, State of Hawaii

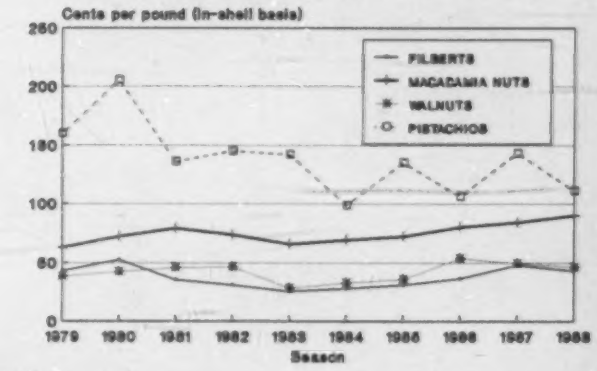
Crop Year [1]	Farms	Acreage		Yield per Acre [2]	Production [3]		Average Moisture		Farm Prices [3]		Farm Value [7]
		In Crop	Bearing		Gross [4]	Net [5]	Entire Crop	Purchases Only	Gross [6]	Net	
	Number	Acres		1,000 pounds			Percent		Cents per pound		1,000 dollars
1984-85 . . .	605	17,500	12,000	3.1	40,500	37,700	19.2	19.7	64.4	69.2	26,088
1985-86 . . .	610	20,900	13,500	3.1	44,700	42,000	19.7	21.5	68.1	72.5	30,450
1986-87 . . .	645	21,200	14,400	3.1	46,600	44,000	20.3	20.7	75.5	80.0	35,200
1987-88 . . .	650	21,500	15,600	2.7	45,600	42,700	19.0	20.3	78.7	84.0	35,868
1988-89 . . .	660	21,900	16,600	2.7	49,000	45,500	18.8	19.6	83.6	90.0	40,950

[1]Season begins July 1st and ends June 30th of the following year. [2]Net production per bearing acre. [3]Wet in-shell basis. [4]Gross pounds delivered for processing. [5]Gross pounds delivered for processing less total spoilage through cracking, but before roasting. [6]Farm value divided by gross production. [7]Net production multiplied by net farm price.

DISTRIBUTION OF MACADAMIA PLANTINGS
BY AGE, AS OF 1988



FARM PRICES OF U.S. NUTS
IN-SHELL BASIS, 1979-88 SEASONS



MACADAMIA NUTS

MACADAMIA NUTS: Commercial plantings by year, State of Hawaii

Year Planted	Acres Planted	Year Planted	Acres Planted	Year Planted	Acres Planted
1915	1	1950	268	1973	1,335
1926	31	1951	192	1974	26
1927	31	1952	203	1975	38
1928	31	1953	215	1976	30
1929	36	1954	208	1977	49
1930	4	1955	239	1978	189
1931	4	1956	110	1979	1,131
1932	4	1957	128	1980	1,606
1933	4	1958	45	1981	685
1934	4	1959	32	1982	1,320
1935	4	1960	137	1983	800
1936	4	1961	159	1984	1,100
1937	4	1962	416	1985	3,400
1938	9	1963	288	1986	300
1939	68	1964	331	1987	300
1940	10	1965	650	1988	400
1943	1	1966	485	Subtotal	21,240
1944	10	1967	759	Unkown	660
1945	36	1968	1,208	Total	21,900
1946	50	1969	1,391		
1947	78	1970	329		
1948	73	1971	28		
1949	189	1972	24		

MACADAMIA NUT YIELD IN HAWAII

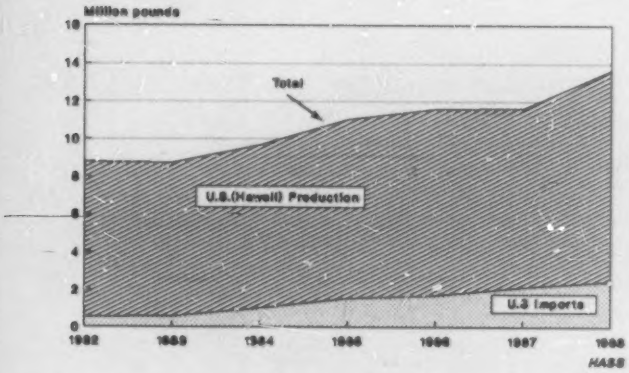
Age of tree (Years)	Pounds per Tree per Year
5	0-15
6	1-20
7	8-40
8	16-60
9	24-80
10	40-90
11	56-100
12	80-100
13	93-100
14	100-107
15	100-115
16	100-122
17	100-130
18	100-137
19	100-147
20	100-150

SOURCE: Keeler, J.T. and E.T. Fukunaga. 1968. The economic and horticultural aspects of growing macadamia nuts commericially in Hawaii. Hawaii Agric. Exp. Sta. Agric. Econ. Bull. 27. 47pp.

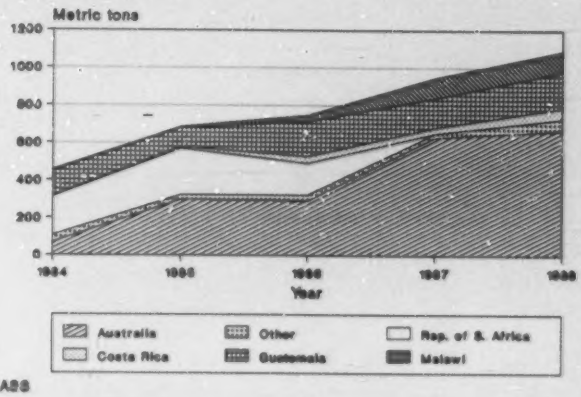
IMPORTS, EXPORTS ON THE RISE

In spite of record Hawaii production, imports into the U.S. have been steadily growing, increasing nearly 450% between 1982 and 1988. In 1988, imported kernels accounted for 18% of the U.S. supply. Major suppliers were Australia, Guatemala, Malawi, and Costa Rica. As the World's taste for macadamia nuts grows, so do exports of processed nuts. Japan, Hong Kong, Canada and Singapore were the biggest customers for over 812,583 pounds of processed nuts exported from the United States in 1988.

MACADAMIA NUTS:
U.S. SUPPLY BULK SHELLED KERNELS
1982-1988



MAJOR FOREIGN SUPPLIERS OF MACADAMIA NUTS INTO THE UNITED STATES, 1984-88



U.S. IMPORTS OF MACADAMIA NUTS BY TYPE

Year	Type		
	Shelled or blanched	Pickled or otherwise prepared or preserved	Not shelled
	Metric Tons		
1982	244	3	0
1983	249	5	0
1984	455	5	0
1985	687	31	0
1986	748	32	0
1987	948	107	0
1988	1,088	105	95

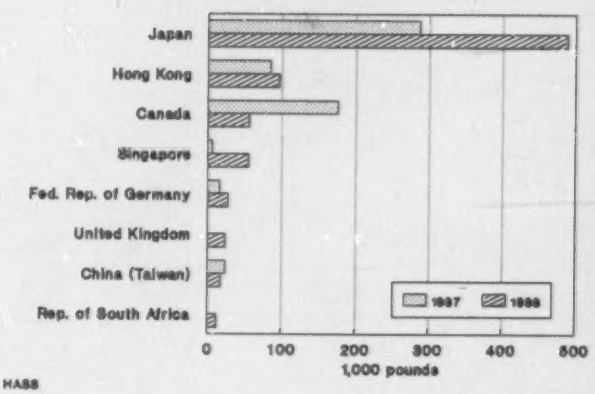
—Source: U.S. Department of Commerce

U.S. EXPORTS OF MACADAMIA NUTS
PREPARED OR PRESERVED WHETHER SHELLED OR NOT SHELLED

Country of Destination	Quantity (Pounds)	
	1988	1987
Arab Emirates	248	0
Argentina	3,510	0
Austria	992	0
Belgium	2,110	0
Belize	684	0
Canada	56,246	176,306
China (Taiwan)	18,034	24,429
Costa Rica	3,474	6,680
Dominican Republic	0	9,126
Fed. Rep. of Germany	27,894	16,540
France	7,710	0
French Pacific Islands	0	3,163
French Polynesia	1,104	0
Gibraltar	582	0
Hong Kong	96,581	84,605
Italy	397	0
Japan	489,388	287,646
Mexico	0	5,185
Norway	283	0
Panama	767	0
Philippine Republic	258	0
Republic of Korea	5,835	11,591
Republic of South Africa	12,250	0
Singapore	55,922	6,443
Spain	2,500	0
Switzerland	1,584	0
United Kingdom	24,200	0
Total	812,583	631,716

Source: U.S. Department of Commerce.

MAJOR EXPORT MARKETS
Macadamia nuts, 1987-1988



PINEAPPLES

PINEAPPLES: Number of farms, acreage, production, disposition, price, and value, State of Hawaii, 1984-88

Year	Farms	Acreage used for crop	Production (fresh weight)	Disposition		Farm price		Value of production (fresh weight)
				Processed (fresh weight)	Fresh market	Processed[1]	Fresh market[2]	
	Number	1,000 acres	1,000 tons			Dollars per ton		Thousand dollars
1984	18	35.0	600	481	119	88	400	89,928
1985	18	34.5	565	441	124	90	410	90,530
1986	19	36.0	646	514	132	90	405	99,720
1987	19	36.1	692	558	134	91	362	99,286
1988	**19**	**34.6**	**659**	**526**	**133**	**99**	**416**	**107,402**

[1]Estimate to reflect value of fresh fruit delivered processing plant door.
[2]Estimate to reflect value at wholesale establishments for local sales and shipper dock for mainland and foreign sales.

PINEAPPLES: Value of processed production, fresh sales and value, State of Hawaii, 1984-88

Year	Fresh market sales			Processor value of canned fruit and juice production[3]	Total value: Fresh market and processed[4]
	Quantity		Value[2]		
	Local	Shipped out-of-State[1]			
	1,000 tons		Thousand dollars	Million dollars	Million dollars
1984	18.0	101.0	47,600	202.0	249.6
1985	17.5	106.5	50,840	171.7	222.5
1986	17.3	114.7	53,460	184.9	238.4
1987	17.5	116.5	48,508	202.9	251.4
1988	**14.7**	**118.3**	**55,328**	**191.7**	**247.0**

[1]Market News Service, Hawaii Department of Agriculture. Includes all destinations.
[2]Value FAS shipping point for outshipments, delivered wholesalers local sales.
[3]Value of canned fruit and juices and by-product shipped out-of-State and sold within State.
[4]Pineapple Growers Association of Hawaii.

PINEAPPLES: Outshipments of fresh pineapples, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 pounds												
1984	16,572	18,450	20,535	18,272	20,267	20,301	17,472	15,885	12,423	15,175	14,030	12,562	201,944
1985	16,975	15,160	21,017	19,298	18,708	20,534	19,354	19,114	12,155	20,715	14,729	14,968	212,727
1986	16,882	18,091	19,400	22,639	24,632	18,348	20,922	17,947	17,213	19,656	17,384	16,231	229,345
1987	16,748	17,169	20,946	17,752	23,749	21,347	17,542	24,170	16,746	21,828	17,642	17,344	232,983
1988	**15,645**	**16,370**	**24,146**	**21,975**	**20,904**	**22,811**	**21,672**	**17,011**	**19,087**	**19,155**	**19,561**	**18,325**	**236,662**

Source of outshipment data: Market News Service, Hawaii Department of Agriculture.

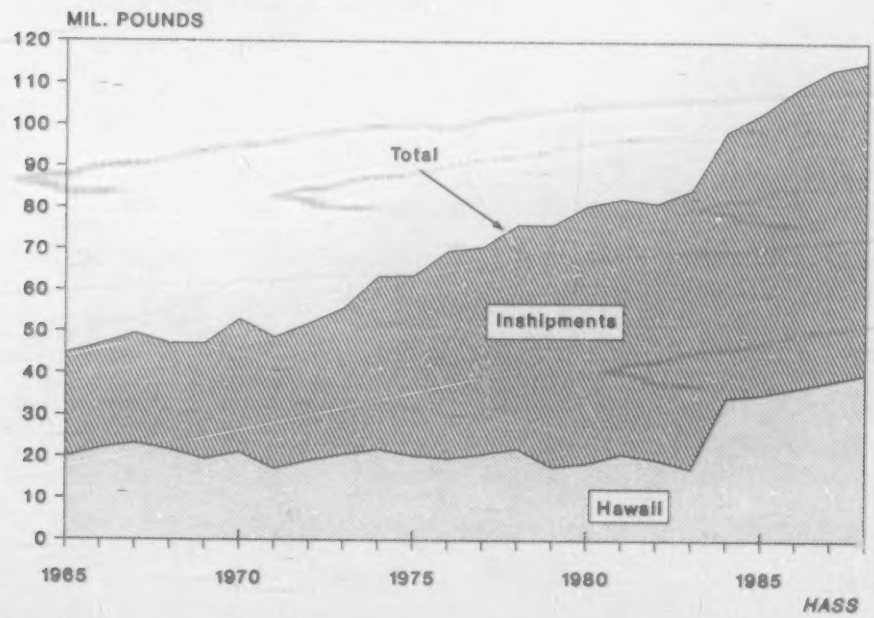
MARKET SUPPLY: Fresh market fruits, State of Hawaii, 1984-88[1]

Commodity		1984	1985	1986	1987	1988	Hawaii market share 1988
		1,000 pounds					Percent
Apples:	Inshipments	12,997	12,463	13,282	14,269	14,610	
Avocados:	Inshipments	820	726	576	1,091	684	
	Hawaii	1,150	1,220	1,300	900	1,200	64
Bananas:	Inshipments	6,472	10,862	10,887	10,607	8,866	
	Hawaii	8,900	8,160	9,700	11,400	12,900	59
Grapefruit:	Inshipments	2,461	2,331	2,335	2,559	2,798	
Grapes:	Inshipments	6,096	6,707	7,366	7,474	8,272	
Lemons:	Inshipments	3,459	3,268	3,407	3,619	3,672	
Nectarines:	Inshipments	2,044	2,218	1,891	2,322	2,698	
Oranges:	Inshipments	17,413	17,593	19,347	17,570	17,050	
	Hawaii	640	340	450	[2]	[2]	
Papayas:	Hawaii[3]	14,190	16,200	16,075	15,910	16,875	100
Pears:	Inshipments	4,053	4,050	4,186	4,404	4,766	
Pineapples:	Hawaii	9,000	8,750	8,650	8,750	7,350	100
Tangerines:	Inshipments	633	465	423	476	420	
	Hawaii	100	50	75	70	30	7
All other fruits:	Inshipments	6,558	6,009	5,926	7,191	7,815	
	Hawaii	350	460	400	1,345	1,740	18
Unspecified fruits:	Inshipments[4]	1,312	1,391	2,627	3,557	3,570	
Total:	Inshipments	64,318	68,083	72,253	75,139	75,221	
	Hawaii	34,330	35,180	36,650	38,375	40,095	35
	All	98,648	103,263	108,903	113,514	115,316	

[1]Excludes pineapples, guavas, papayas, and passion fruit used for processing, and quantities shipped out-of-State. [2]Data not shown separately to avoid disclosure of individual operations but combined and included with all other fruits. [3]Fresh intrastate sales only. Excludes mainland and foreign fresh sales. [4]Proration of shipments of unspecified mixed fruits destined for outlying islands.

Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

Fresh Market Fruits
State of Hawaii, 1965-88



ORANGES

ORANGES: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1984-88

Year	Farms	Acreage bearing[1]	Yield per acre	Production	Farm price	Value of sales
	Number	Acres	1,000 pounds		Cents per pound	1,000 dollars
1984	15	110	5.8	640	26.6	170
1985	11	100	3.4	340	25.5	87
1986	12	100	4.5	450	25.4	114
1987[2]						
1988[2]						

[1]At end of year.
[2]Data not shown separately to avoid disclosure of individual operations but combined and included in fruits (excluding pineapples).

PASSION FRUIT

PASSION FRUIT: Number of farms, acreage, quantity processed, price, and value, State of Hawaii, 1984-88

Year	Farms	Cultivated acreage[1]		Quantity processed [2]	Average price	Value of sales[2]
		In crop	Bearing			
	Number	Acres		1,000 pounds	Cents per pound	1,000 dollars
1984	21	100	40	785	12.1	95
1985	19	60	25	820	12.3	101
1986	11	45	35	550	12.3	68
1987	19	30	20	560	12.0	67
1988	22	66	26	700	13.7	96

[1]At end of year.
[2]Includes wild and cultivated production.

TANGERINES

TANGERINES: Number of farms, acreage, yield, production, price, and value, State of Hawaii, 1984-88

Year	Farms	Acreage bearing[1]	Yield per acre	Production	Farm price	Value of sales
	Number	Acres	1,000 pounds		Cents per pound	1,000 dollars
1984	13	22	4.5	100	26.2	26
1985	9	15	3.3	50	35.1	18
1986	13	15	5.0	75	36.3	27
1987	11	15	4.7	70	32.5	23
1988	9	7	4.3	30	38.0	11

[1]At end of year.

GUAVAS: Total processed, farm production, number of farms, acreage, price, and value, State of Hawaii, 1984-88

Year	Total delivered to processors[1]			Farm production					
	Quantity processed	Average price	Value of sales	Farms	Acreage in crop	Acreage harvested	Production	Farm price	Value of sales
	1,000 pounds	Cents per pound	1,000 dollars	Number	Acres		1,000 pounds	Cents per pound	1,000 dollars
					STATE				
1984...	7,000	9.8	686	107	875	610	6,740	9.8	661
1985...	9,530	10.2	972	100	920	680	8,890	10.2	907
1986...	17,130	10.5	1,799	100	990	690	16,560	10.5	1,739
1987...	18,050	12.0	2,166	110	[2]1,070	710	17,450	12.0	2,094
1988...	**19,000**	**13.4**	**2,546**	**105**	[2]**1,120**	**865**	**18,560**	**13.4**	**2,487**
					HAWAII				
1984...	3,630	9.8	356	95	370	250	3,610	9.8	354
1985...	3,170	10.0	317	91	330	200	3,050	10.0	305
1986...	5,210	10.5	547	90	340	210	5,130	10.5	539
1987...	5,450	12.0	654	98	[2]420	210	5,260	12.0	631
1988...	**6,550**	**13.4**	**878**	**95**	[2]**465**	**210**	**6,530**	**13.4**	**875**
					KAUAI/MAUI/MOLOKAI/OAHU[3]				
1984...	3,370	9.8	330	12	505	360	3,130	9.8	307
1985...	6,360	10.3	655	9	590	480	5,840	10.3	602
1986...	11,920	10.5	1,252	10	650	480	11,430	10.5	1,200
1987...	12,600	12.0	1,512	12	[2]650	500	12,190	12.0	1,463
1988...	**12,450**	**13.4**	**1,668**	**10**	[2]**655**	**655**	**12,030**	**13.4**	**1,612**

[1]Fruit allocated to island of production not island where processed. Includes wild and cultivated production.
[2]Includes planting intentions.
[3]Kauai, Maui, Molokai and Oahu are combined to avoid disclosure of individual operations.

GUAVAS: Quantity, price, and value, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual Total[1]	Average price[2]	Value
	1,000 pounds													Cents per lb.	1,000 dollars
1984.....	325	355	345	365	530	570	780	1,165	775	645	595	550	7,000	9.8	686
1985.....	345	235	155	320	490	425	480	1,040	1,840	1,255	1,840	1,105	9,530	10.2	972
1986.....	1,345	945	450	360	690	525	570	1,865	4,855	3,695	1,070	760	17,130	10.5	1,799
1987.....	313	409	422	228	392	1,006	1,750	1,904	3,323	4,484	2,509	1,310	18,050	12.0	2,166
1988....	**614**	**491**	**754**	**363**	**163**	**226**	**994**	**2,858**	**3,724**	**3,344**	**2,843**	**2,626**	**19,000**	**13.4**	**2,546**

[1]Sum of monthly estimates may not add to annual total due to rounding.
[2]Equivalent F.O.B. plant, island of production. Prices for guavas are averages for wild and cultivated fruit.

GUAVAS: U. S. imports by product type, 1984-88

Product form	1984	1985	1986	1987	1988
	1,000 pounds				
Paste and pulp	7,974	8,452	13,876	9,546	14,442
Prepared, preserved, not specifically provided for	1,329	1,138	1,612	2,546	1,539
Jam and jelly	891	1,373	767	1,041	1,409
Freeze-dried, pickled, brine	55	11	11	123	63
Total	**10,249**	**10,974**	**16,266**	**13,256**	**17,453**

Source: Economic Research Service, U. S. Department of Agriculture.

BANANAS

BANANAS: Number of farms, acreage, yield, production, price, and value, by islands, 1984-88

Year	Farms	Acreage		Yield per acre (harvested)	Production	Farm price	Value of sales
		In crop[1]	Harvested				
	Number	Acres		1,000 pounds		Cents per pound	1,000 dollars
				STATE[2]			
1984	180	990	870	10.2	8,900	30.0	2,670
1985	178	1,060	840	9.7	8,160	30.3	2,472
1986	185	1,140	980	9.9	9,700	30.0	2,910
1987	175	1,220	1,070	10.7	11,400	29.7	3,386
1988	**160**	**1,220**	**1,070**	**12.1**	**12,900**	**33.0**	**4,257**
				HAWAII			
1984	32	330	305	10.3	3,140	28.3	889
1985	35	385	260	12.5	3,240	27.5	891
1986	41	440	370	9.5	3,500	28.0	980
1987	32	480	380	14.8	5,610	29.1	1,633
1988	**28**	**505**	**410**	**20.1**	**8,245**	**32.2**	**2,655**
				KAUAI			
1984	35	135	110	18.9	2,080	23.6	491
1985	34	155	145	13.7	1,990	26.5	527
1986	40	155	135	15.3	2,070	25.9	536
1987	38	145	145	13.5	1,960	25.1	492
1988	**30**	**90**	**85**	**9.8**	**835**	**33.1**	**276**
				MAUI/MOLOKAI			
1984	20	75	65	8.2	530	27.7	147
1985	19	65	45	7.2	325	29.2	95
1986	16	70	50	10.0	500	30.6	153
1987	12	70	70	4.6	320	34.3	110
1988	**12**	**65**	**60**	**1.8**	**110**	**35.7**	**39**
				OAHU			
1984	93	450	390	8.1	3,150	36.3	1,143
1985	90	455	390	6.7	2,605	36.8	959
1986	88	475	425	8.5	3,630	34.2	1,241
1987	93	525	475	7.4	3,510	32.8	1,151
1988	**90**	**560**	**515**	**7.2**	**3,710**	**34.7**	**1,287**

[1]As of February following year, i.e., acreage data shown for 1988 is as of February 1, 1989.
[2]Island totals may not add to State totals due to rounding.

BANANAS: Acreage by variety, State of Hawaii, February 1, 1989

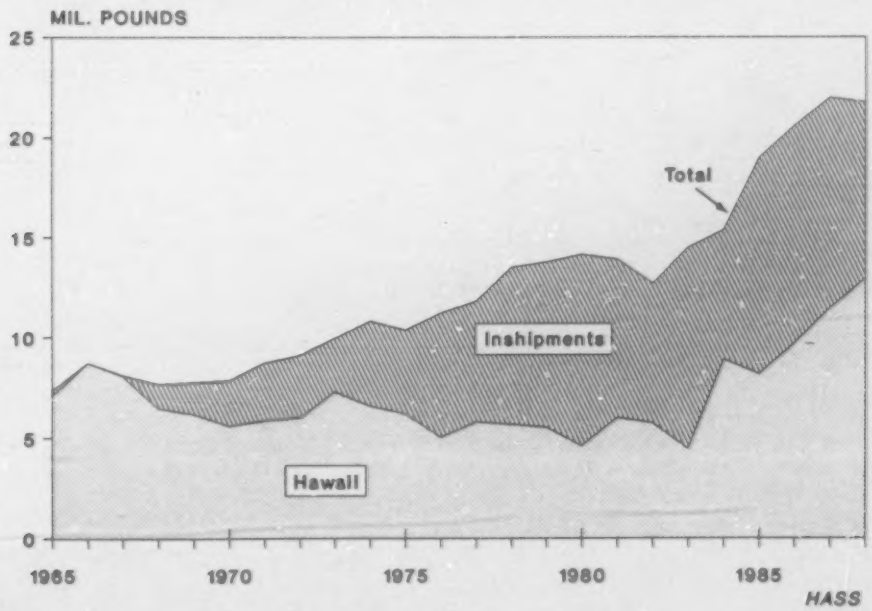
Island	Variety					
	Brazilian[1] (Apple)	Bluefields[2] (Gros Michel)	Cavendish			Others[4]
			Chinese	Williams Hybrid	Robusta[3]	
Hawaii	40	*	*	400	65	*
Kauai	25	15	*	50	*	0
Maui/ Molokai	25	10	0	25	*	5
Oahu	420	*	10	110	*	20
Total	**510**	**25**	**10**	**585**	**65**	**25**

* = Less than 5 acres. [1]Includes Dwarf "Apple". [2]Includes "Cocos" or Dwarf Bluefields. [3]Includes Taiwan. [4]Includes cooking and Lady Finger.

BANANAS: Monthly production, total acreage in crop, and total acreage harvested, by varieties, and price, State of Hawaii, 1984-88

Year	Production													Acreage	
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average	In crop	Harvested
	1,000 pounds													Acres	
BRAZILIAN (APPLE)															
1984	139	183	276	266	204	177	186	170	172	209	139	89	2,210	365	305
1985	122	73	97	86	80	81	135	249	257	248	228	214	1,870	380	320
1986	166	150	135	143	158	139	151	186	204	193	194	211	2,030	420	365
1987	151	117	150	136	138	137	149	152	171	202	211	206	1,920	465	405
1988	**172**	**187**	**213**	**164**	**159**	**178**	**201**	**251**	**250**	**256**	**248**	**231**	**2,510**	**510**	**465**
BLUEFIELDS (GROS MICHEL)															
1984	38	43	40	29	41	37	55	44	41	45	44	33	490	60	55
1985	32	28	18	20	17	21	29	25	28	25	22	25	290	45	40
1986	24	19	20	15	17	16	24	30	23	18	20	14	240	35	30
1987	15	11	10	10	10	9	9	13	9	9	8	7	120	30	30
1988	**8**	**8**	**7**	**8**	**8**	**8**	**9**	**8**	**9**	**9**	**9**	**9**	**100**	**25**	**20**
CAVENDISH (CHINESE, ROBUSTA, AND WILLIAMS HYBRID)															
1984	456	456	536	381	514	474	485	499	514	695	638	552	6,200	545	495
1985	453	392	346	345	332	471	611	614	591	641	609	595	6,000	605	465
1986	556	497	507	437	510	529	624	586	642	857	870	815	7,430	665	565
1987	750	687	755	632	540	703	859	946	804	811	855	1,018	9,360	705	615
1988	**854**	**784**	**790**	**730**	**676**	**826**	**921**	**949**	**852**	**1,092**	**878**	**958**	**10,290**	**660**	**560**
FARM PRICE FOR FRESH MARKET															
	Cents per pound														
1984	31.5	31.3	30.7	30.0	29.3	29.5	29.3	29.3	29.7	30.3	29.0	29.9	30.0		
1985	30.4	30.0	30.7	31.0	30.9	30.4	30.0	32.0	31.5	29.3	29.0	29.1	30.3		
1986	29.1	29.1	29.2	30.7	30.6	30.5	29.9	30.5	30.6	29.7	29.8	30.3	30.0		
1987	29.9	29.1	29.3	30.8	30.7	30.2	28.9	29.3	29.2	29.8	30.1	29.8	29.7		
1988	**29.0**	**32.1**	**33.0**	**32.9**	**33.8**	**34.6**	**33.9**	**32.7**	**33.3**	**33.3**	**33.5**	**33.7**	**33.0**		

MARKET SUPPLY: Fresh Market Bananas, State of Hawaii, 1965-88



PAPAYAS

PAPAYAS: Number of farms, acreage, yield, utilization, price, and value, by islands, 1984-88[1]

Year	Farms[2]	Acreage harvested[2]	Yield per acre[3]	Utilized production	Utilization		Price per pound			Value of utilized production
					Fresh	Processed	Fresh	Processed[4]	All	
	Number	Acres	1,000 pounds				Cents			1,000 dollars
					STATE					
1984	306	2,590	31.1	80,500	67,000	13,500	13.1	3.1	11.4	9,196
1985	315	2,650	22.8	60,400	49,250	11,150	16.9	2.3	14.2	8,579
1986	311	2,355	25.9	61,000	50,100	10,900	21.7	2.3	18.2	11,123
1987	293	2,350	28.5	67,000	56,000	11,000	19.3	2.2	16.5	11,050
1988	**305**	**2,300**	**30.0**	**69,000**	**57,000**	**12,000**	**21.0**	**3.2**	**17.9**	**12,354**
					HAWAII					
1984	219	2,165	30.6	66,140	52,680	13,460	13.5		11.4	7,531
1985	238	2,350	23.6	55,375	44,285	11,090	16.4		13.6	7,506
1986	241	2,178	26.3	57,270	46,510	10,760	21.6		18.0	10,274
1987	231	2,183	28.9	63,095	52,430	10,665	19.0		16.1	10,173
1988	**250**	**2,172**	**30.6**	**66,358**	**54,635**	**11,723**	**20.7**		**17.6**	**11,656**
					KAUAI					
1984	42	320	36.1	11,554	11,554	0	[5]10.3		[5]10.3	[5]1,236
1985	36	215	15.7	3,365	3,365	0	[5]19.3		[5]19.3	[5]662
1986	30	112	20.0	2,240	2,240	0	[5]22.5		[5]22.5	[5]530
1987	24	98	21.6	2,115	2,035	80	[5]21.8		[5]21.1	[5]468
1988	**20**	**70**	**19.9**	**1,394**	**1,370**	**24**	**[6]28.9**		**[6]26.4**	**[6]376**
					MAUI/MOLOKAI					
1984	5	20	21.1	420	420	0	[6]		[6]	[6]
1985	4	5	13.0	65	65	0	[6]		[6]	[6]
1986	6	8	14.4	115	115	0	[6]		[6]	[6]
1987	6	8	13.1	105	105	0	[6]		[6]	[6]
1988	**5**	**8**	**7.5**	**60**	**60**	**0**	[6]		[6]	[6]
					OAHU					
1984	40	85	28.0	2,386	2,346	40	18.2		18.0	429
1985	37	80	19.9	1,595	1,535	60	26.7		25.8	411
1986	34	57	24.1	1,375	1,235	140	25.6		23.2	319
1987	32	61	27.6	1,685	1,430	255	28.2		24.3	409
1988	**30**	**50**	**23.8**	**1,188**	**935**	**253**	[6]		[6]	**322**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Average of monthly estimates.
[3]Utilized production divided by acreage harvested.
[4]Island data not shown separately to avoid disclosure of individual operations.
[5]Maui and Molokai combined with Kauai to avoid disclosure of individual operations.
[6]Oahu, Maui and Molokai combined with Kauai to avoid disclosure of individual operations.

PAPAYAS: Acreage, utilization, price, and outshipments, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
						Area harvested – Acres[1]							
1984.....	2,330	2,370	2,430	2,455	2,570	2,630	2,710	2,800	2,690	2,635	2,725	2,765	2,590
1985.....	2,810	2,920	2,890	2,820	2,820	2,695	2,725	2,625	2,345	2,410	2,385	2,395	2,650
1986.....	2,430	2,485	2,405	2,390	2,380	2,365	2,310	2,250	2,340	2,375	2,265	2,270	2,355
1987.....	2,420	2,395	2,400	2,330	2,310	2,300	2,330	2,350	2,345	2,325	2,445	2,240	2,350
1988	**2,175**	**2,225**	**2,200**	**2,175**	**2,325**	**2,220**	**2,290**	**2,310**	**2,410**	**2,375**	**2,420**	**2,410**	**2,300**
						Utilization (fresh and processed) – 1,000 pounds							
1984.....	6,505	6,127	7,501	8,959	8,028	6,022	6,931	8,443	5,011	5,751	6,833	4,389	80,500
1985.....	4,704	5,544	5,642	4,531	4,389	4,249	6,944	5,446	4,561	5,634	4,838	3,918	60,400
1986.....	4,565	4,890	5,545	5,605	5,845	4,875	5,480	4,055	3,655	6,480	4,885	5,120	61,000
1987.....	4,540	4,310	4,010	4,720	5,100	5,895	6,040	5,865	5,830	6,770	7,140	6,780	67,000
1988	**4,525**	**3,300**	**3,290**	**4,710**	**5,315**	**5,715**	**6,740**	**6,160**	**7,255**	**7,730**	**7,105**	**7,155**	**69,000**
						Total fresh papaya utilization – 1,000 pounds							
1984.....	5,100	5,039	6,049	6,790	5,977	5,094	5,472	7,478	4,788	5,458	5,999	3,756	67,000
1985.....	4,267	4,400	4,791	4,079	3,914	3,619	5,134	3,989	3,722	4,594	3,383	3,358	49,250
1986.....	3,925	3,970	4,215	4,295	4,910	3,700	4,140	3,425	3,120	5,805	4,155	4,440	50,100
1987.....	4,000	3,665	3,465	4,125	4,175	4,525	4,785	4,660	4,770	5,900	5,940	5,990	56,000
1988	**4,030**	**3,000**	**3,100**	**4,340**	**4,340**	**4,580**	**5,470**	**4,930**	**5,820**	**5,835**	**5,665**	**5,890**	**57,000**
						Intrastate fresh papaya utilization – 1,000 pounds							
1984.....	1,156	1,253	1,598	1,248	1,310	1,381	1,064	1,361	743	786	1,500	790	14,190
1985.....	1,697	1,676	1,427	1,225	1,320	1,123	1,352	1,049	1,125	1,585	1,371	1,250	16,200
1986.....	1,490	1,530	1,531	1,436	1,495	1,047	1,378	1,075	1,034	1,513	1,111	1,435	16,075
1987.....	1,203	1,160	960	1,372	1,225	1,197	1,277	1,381	1,467	1,622	1,469	1,577	15,910
1988	**1,165**	**971**	**1,034**	**1,360**	**1,443**	**1,415**	**1,532**	**1,548**	**1,559**	**1,593**	**1,638**	**1,617**	**16,875**
						Outshipments of fresh papayas – 1,000 pounds							
1984.....	3,944	3,786	4,451	5,542	4,667	3,713	4,408	6,117	4,045	4,672	4,499	2,966	52,810
1985.....	2,570	2,724	3,364	2,854	2,594	2,496	3,782	2,940	2,597	3,009	2,012	2,108	33,050
1986.....	2,435	2,440	2,684	2,859	3,415	2,653	2,762	2,350	2,086	4,292	3,044	3,005	34,025
1987.....	2,797	2,505	2,505	2,753	2,950	3,328	3,508	3,279	3,303	4,278	4,471	4,413	40,090
1988	**2,865**	**2,029**	**2,066**	**2,980**	**2,897**	**3,165**	**3,938**	**3,382**	**4,261**	**4,242**	**4,027**	**4,273**	**40,125**
						Farm price for fresh market sales (to all markets) – Cents per pound							
1984.....	12.0	16.4	15.3	11.7	15.7	12.7	12.7	9.6	11.8	13.5	12.8	12.9	13.1
1985.....	16.2	17.1	18.0	19.7	21.0	21.1	17.0	14.0	14.4	14.7	14.8	15.1	16.9
1986.....	22.1	23.1	23.9	23.5	27.4	21.2	20.9	22.1	25.6	18.7	14.5	19.2	21.7
1987.....	19.4	20.7	27.0	27.6	24.4	21.4	18.6	17.3	16.7	16.2	15.1	15.0	19.3
1988	**18.9**	**28.6**	**39.2**	**36.0**	**22.8**	**20.4**	**18.8**	**18.2**	**16.3**	**15.3**	**14.9**	**16.8**	**21.0**

[1]Total is average of monthly data.

MARKET SUPPLY: FRESH VEGETABLES

MARKET SUPPLY: Fresh market vegetables, State of Hawaii, 1984-88

Commodity		1984	1985	1986	1987	1988	Hawaii market share 1988
		1,000 pounds					Percent
Beans, snap:	Inshipments	72	148	330	416	337	
	Hawaii	1,390	1,250	980	890	950	74
Bittermelon:	Inshipments	0	4	8	10	21	
	Hawaii	330	210	300	220	180	90
Broccoli:	Inshipments	3,832	4,461	5,376	5,695	6,024	
	Hawaii	660	960	790	675	550	8
Burdock:	Inshipments	2	4	1	1	6	
	Hawaii	820	750	510	580	450	99
Cabbage, Chinese:	Inshipments	55	55	102	76	247	
	Hawaii[1]	6,520	6,970	5,810	6,700	7,000	97
Cabbage, head:	Inshipments	325	199	289	184	628	
	Hawaii	13,190	13,300	14,000	14,950	15,620	96
Cabbage, mustard:	Inshipments	24	56	62	61	147	
	Hawaii	1,770	1,520	1,600	1,450	1,260	90
Carrots:	Inshipments	8,488	9,137	9,624	10,254	10,607	
	Hawaii	220	200	160	80	30	–
Cauliflower:	Inshipments	1,308	1,185	1,575	1,961	1,944	
	Hawaii	410	850	710	320	480	20
Celery:	Inshipments	3,620	4,026	4,909	5,141	5,553	
	Hawaii	4,050	3,450	2,680	2,730	2,200	28
Corn, sweet:	Inshipments	248	382	767	865	973	
	Hawaii	1,300	1,060	1,040	1,480	660	40
Cucumbers:	Inshipments	1,516	1,708	2,024	1,732	1,702	
	Hawaii	4,870	4,200	3,720	3,960	3,950	70
Daikon:	Inshipments	0	50	23	19	41	
	Hawaii[1]	2,390	3,040	3,330	3,130	2,610	98
Dasheen:	Inshipments	7	10	8	12	43	
	Hawaii	240	210	200	155	220	84
Eggplant:	Inshipments	64	133	196	308	337	
	Hawaii	1,380	1,340	1,300	1,290	1,180	78
Ginger root:	Inshipments	82	264	329	210	300	
	Hawaii	5,050	5,425	5,900	10,050	8,100	96
Lettuce:	Inshipments	12,760	16,021	16,519	17,196	19,925	
	Hawaii	10,200	9,400	8,700	7,000	4,500	18
Lotus root:	Inshipments	1	18	13	8	18	
	Hawaii	180	185	150	145	190	91
Onions, dry:	Inshipments	14,463	14,016	15,679	15,530	17,070	
	Hawaii	2,660	1,890	1,480	1,980	1,420	8
Onions, green:	Inshipments	191	204	184	232	307	
	Hawaii	1,240	1,410	1,440	1,220	1,240	80
Parsley, American:	Inshipments	21	37	44	64	75	
	Hawaii	415	310	320	310	280	79
Peas, Chinese:	Inshipments	328	305	336	280	294	
	Hawaii	80	80	70	70	55	16
Peppers, green:	Inshipments	1,836	1,788	1,392	1,595	2,634	
	Hawaii	1,460	1,480	2,050	2,300	1,430	35
Potatoes:	Inshipments[2]	40,741	40,916	43,170	42,777	42,777	
	Hawaii	–	–	–	–	–	–
Pumpkins:	Inshipments	519	1,087	1,088	1,040	1,262	
	Hawaii	330	260	200	140	95	7
Radish:	Inshipments	10	4	14	15	2	
	Hawaii	300	310	205	320	325	99

See footnotes at end of table.

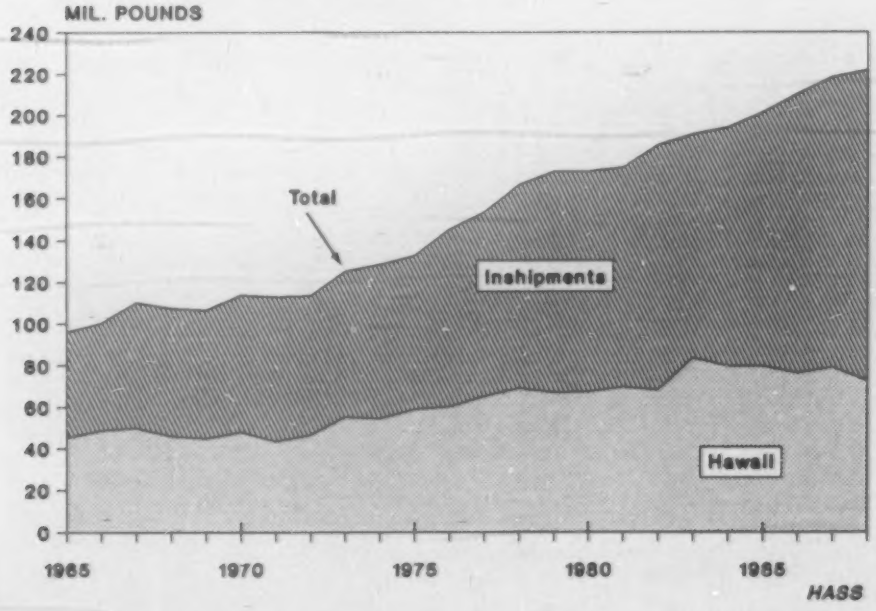
Continued

MARKET SUPPLY: Fresh market vegetables, State of Hawaii, 1984-88 -- Continued

Commodity		1984	1985	1986	1987	1988	Hawaii market share 1988
		1,000 pounds					Percent
Romaine:	Inshipments	1,015	1,332	1,673	1,951	2,868	
	Hawaii	2,320	2,520	2,300	1,860	1,680	37
Squash, Italian:	Inshipments	1,030	1,015	1,125	1,177	1,200	
	Hawaii	960	1,160	1,030	1,000	1,040	46
Squash, Oriental:	Inshipments	48	101	143	83	121	
	Hawaii	650	490	400	315	350	74
Sweetpotatoes:	Inshipments	614	719	676	799	823	
	Hawaii	1,720	1,910	2,100	1,600	1,540	65
Taro:	Inshipments	677	1,013	667	917	615	
	Hawaii[1]	290	590	490	570	600	49
Tomatoes:	Inshipments	9,434	9,824	11,234	11,378	11,997	
	Hawaii	7,700	7,800	6,700	7,000	7,000	37
Watercress:	Inshipments	6	0	9	22	4	
	Hawaii	1,400	1,530	1,200	1,230	1,200	99+
All other vegetables:	Inshipments	8,671	8,728	9,488	10,696	11,545	
	Hawaii	3,035	3,570	4,350	4,400	3,950	25
Unspecified vegetables:	Inshipments[3]	2,500	2,652	5,007	6,780	6,804	
Total:	Inshipments	114,508	121,602	134,084	139,485	149,251	
	Hawaii	79,530	79,630	76,215	80,120	72,335	33
	All	194,038	201,232	210,299	219,605	221,586	

– = Negligible.
[1]Fresh market only. [2]For processing and fresh market. (Potato production for Hawaii included with all other vegetables for Hawaii to avoid disclosure.) [3]Proration of shipments of unspecified mixed vegetables destined for outlying islands.
Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

MARKET SUPPLY: Fresh Market Vegetables, State of Hawaii, 1965-88



SNAP BEANS

SNAP BEANS: Acreage, yield, production, price, and value, by Islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	170	8.2	1,390	66.0	917
1985	160	7.8	1,250	77.2	965
1986	130	7.5	980	77.2	757
1987	150	5.9	890	74.3	661
1988	**160**	**5.9**	**950**	**78.6**	**747**
			HAWAII/KAUAI[2]		
1984	20	6.8	135	67.0	90
1985	20	6.0	120	74.1	89
1986	20	5.0	100	73.5	74
1987	25	4.4	110	63.3	70
1988	**25**	**4.2**	**105**	**79.1**	**83**
			MAUI/MOLOKAI		
1984	110	8.4	925	65.2	603
1985	90	8.3	750	73.7	553
1986	60	9.0	540	72.2	390
1987	85	6.2	530	73.8	391
1988	**110**	**6.5**	**715**	**78.2**	**559**
			OAHU		
1984	40	8.3	330	67.8	224
1985	50	7.6	380	85.0	323
1986	50	6.8	340	86.1	293
1987	40	6.3	250	80.0	200
1988	**25**	**5.2**	**130**	**80.5**	**105**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai combined with Hawaii to avoid disclosure of individual operations.

SNAP BEANS: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production[2]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	19	15	13	11	13	121	122	94	61	48	73.7	82.2	79.5	69.2	83.2
February	19	12	18	9	11	108	102	105	65	59	65.0	86.6	79.2	76.0	84.3
March	19	20	16	10	14	133	107	112	84	91	57.2	80.8	77.2	80.6	81.8
April	19	14	16	12	16	114	122	98	100	89	58.8	78.0	78.7	69.6	72.3
May	18	16	14	18	14	130	119	106	97	94	60.4	71.5	80.6	64.4	71.3
June	17	14	15	19	16	112	120	103	109	82	65.7	71.0	77.7	70.4	74.8
July	16	12	13	21	12	114	102	70	95	82	63.2	66.4	84.3	74.6	74.1
August	16	11	9	22	13	118	89	44	70	94	65.4	73.9	80.5	76.5	75.2
September	14	10	9	13	16	117	82	61	75	73	64.9	78.4	68.4	83.3	80.6
October	14	10	11	10	17	123	106	64	52	74	64.6	80.5	69.7	76.5	83.4
November	14	9	10	16	15	112	99	48	47	73	76.7	71.0	72.7	79.3	82.6
December	15	13	12	11	21	88	80	75	35	91	82.6	88.5	72.0	82.4	85.7
Total or average	170	160	130	150	160	1,390	1,250	980	890	950	66.0	77.2	77.2	74.3	78.6

[1]Sum of monthly data exceeds total because harvest period longer than 1 month.
[2]Sum of monthly estimates may not add to annual total due to rounding.

CHINESE CABBAGE: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	400	19.8	7,910	13.1	1,036
1985	370	22.4	8,300	13.6	1,129
1986	350	20.6	7,200	14.2	1,022
1987	400	20.0	8,000	15.9	1,272
1988	**450**	**18.4**	**8,300**	**17.3**	**1,436**
			HAWAII		
1984	380	19.6	7,460	12.7	947
1985	330	22.7	7,480	13.0	972
1986	330	20.6	6,800	14.1	959
1987	330	21.0	6,920	15.6	1,080
1988	**325**	**19.7**	**6,400**	**17.0**	**1,088**
			KAUAI/MAUI/OAHU[2]		
1984	20	22.5	450	19.7	89
1985	40	20.5	820	19.1	157
1986	20	20.0	400	15.8	63
1987	70	15.4	1,080	17.8	192
1988	**125**	**15.2**	**1,900**	**18.3**	**348**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai and Oahu combined with Maui to avoid disclosure of individual operations.

CHINESE CABBAGE: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Processing and fresh market									
						Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	33	30	23	31	36	609	685	580	618	574	12.7	21.3	12.7	15.4	23.5
February	38	38	28	37	45	935	776	759	731	806	12.4	17.6	13.9	14.7	16.7
March	61	43	37	39	50	1,299	955	778	1,088	1,117	10.7	15.0	13.5	14.2	14.3
April	44	38	33	33	52	691	1,211	613	874	873	9.2	12.5	14.2	12.4	13.2
May	36	28	27	31	39	514	539	547	585	577	9.8	11.8	14.9	11.3	12.4
June	25	28	30	31	34	594	579	518	577	642	9.8	11.5	14.2	11.6	14.3
July	28	29	29	31	30	561	590	571	545	560	11.8	11.4	12.5	17.2	15.9
August	31	27	27	28	35	598	609	569	563	519	13.7	12.5	13.2	19.9	20.0
September	30	29	22	31	27	532	520	492	601	649	14.2	14.0	14.1	18.6	21.1
October	27	27	27	29	35	543	584	521	623	607	17.2	11.6	17.2	18.4	20.0
November	28	30	31	36	34	516	603	576	589	643	20.3	11.0	15.7	19.0	19.9
December	19	23	31	43	33	518	649	676	606	733	21.2	11.0	14.8	21.5	20.2
Total or average	400	370	350	400	450	7,910	8,300	7,200	8,000	8,300	13.1	13.8	14.2	15.9	17.3

[1]Sum of monthly estimates may not add to annual total due to rounding.

HEAD CABBAGE

HEAD CABBAGE: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	470	28.1	13,190	15.6	2,058
1985	460	28.9	13,300	16.3	2,168
1986	490	28.6	14,000	15.5	2,170
1987	510	29.3	14,950	14.6	2,183
1988	**560**	**27.9**	**15,620**	**16.4**	**2,562**
			HAWAII/KAUAI/OAHU[2]		
1984	125	21.5	2,690	12.5	336
1985	130	22.7	2,950	14.9	440
1986	150	20.1	3,020	14.4	435
1987	150	20.0	3,000	15.0	450
1988	**150**	**19.3**	**2,890**	**16.0**	**462**
			MAUI		
1984	345	30.4	10,500	16.4	1,722
1985	330	31.4	10,350	16.7	1,728
1986	340	32.3	10,980	15.8	1,735
1987	360	33.2	11,950	14.5	1,733
1988	**410**	**31.0**	**12,730**	**16.5**	**2,100**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai and Oahu combined with Hawaii to avoid disclosure of individual operations.

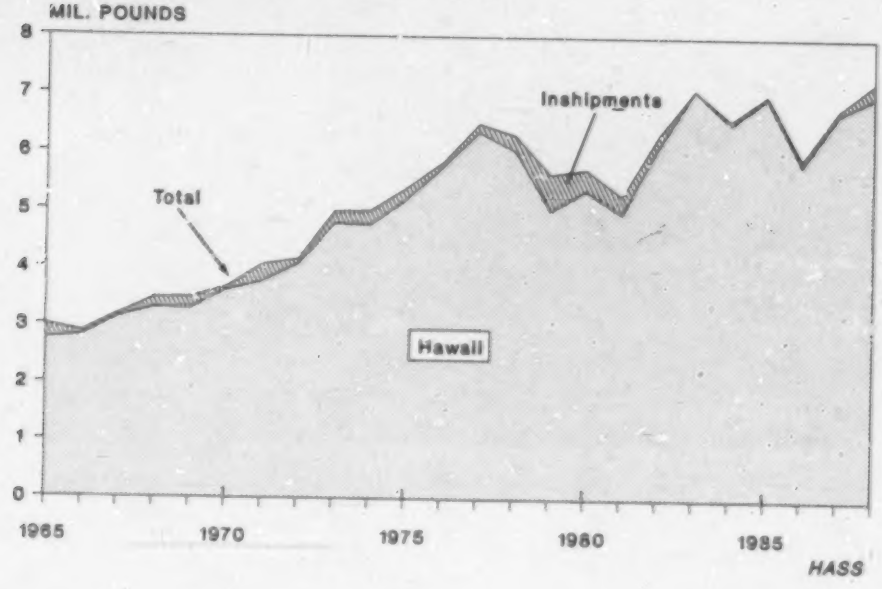
HEAD CABBAGE: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production[1]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	42	32	42	43	46	1,184	1,130	1,232	1,205	1,096	14.4	18.1	13.6	14.5	21.3
February	39	36	42	43	45	1,158	1,053	1,166	1,265	1,289	16.5	17.9	11.8	14.6	20.1
March	45	40	42	44	46	1,278	1,167	1,261	1,351	1,628	16.2	14.9	13.5	13.4	17.3
April	41	40	41	46	50	1,088	1,069	1,186	1,240	1,220	15.0	16.8	11.8	12.0	15.8
May	40	47	41	39	49	1,177	1,029	1,263	1,160	1,259	13.7	15.8	14.5	12.6	14.6
June	41	40	41	40	45	1,162	1,046	1,145	1,204	1,410	13.7	15.9	14.1	11.3	13.0
July	36	39	41	38	44	1,083	1,103	1,204	1,252	1,327	14.5	15.9	16.0	13.0	14.0
August	40	34	39	41	42	1,083	1,096	1,161	1,167	1,255	14.9	17.0	16.4	13.7	15.7
September	36	36	39	45	47	962	1,016	1,057	1,211	1,233	16.6	17.4	18.3	16.0	15.9
October	37	40	41	43	47	991	1,214	975	1,281	1,322	17.6	16.3	20.3	16.2	15.9
November	38	37	38	44	51	943	1,093	1,067	1,146	1,309	18.0	15.4	19.4	17.7	16.1
December	35	39	43	44	48	1,081	1,284	1,283	1,468	1,272	17.5	14.9	17.3	19.3	17.7
Total or average	470	460	490	510	560	13,190	13,300	14,000	14,950	15,620	15.6	16.3	15.5	14.6	16.4

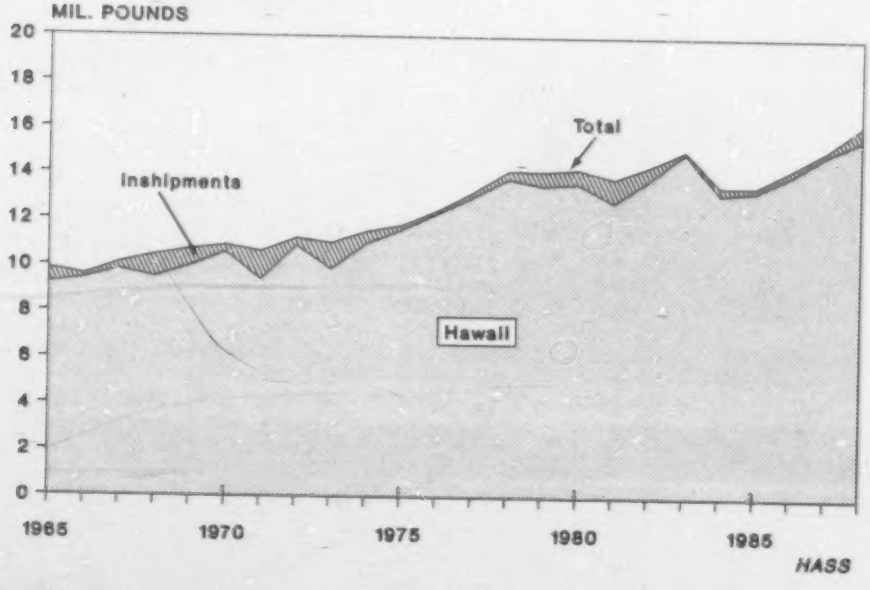
[1]Sum of monthly estimates may not add to State total due to rounding.

FRESH MARKET SUPPLY: CHINESE CABBAGE AND HEAD CABBAGE

MARKET SUPPLY:
Fresh Market Chinese Cabbage,
State of Hawaii, 1965-88



MARKET SUPPLY:
Fresh Market Head Cabbage,
State of Hawaii, 1965-88



CELERY

CELERY: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	115	35.2	4,050	20.0	810
1985	110	31.4	3,450	19.5	673
1986	100	26.8	2,680	21.5	576
1987	90	30.3	2,730	20.6	562
1988	**85**	**25.9**	**2,200**	**22.9**	**504**
			HAWAII		
1984	100	34.4	3,440	19.3	664
1985	90	30.0	2,700	18.7	505
1986	85	25.4	2,160	20.7	447
1987	70	28.9	2,020	20.1	406
1988	**65**	**24.6**	**1,600**	**22.8**	**362**
			MAUI		
1984	15	40.7	610	23.9	146
1985	20	37.5	750	22.4	168
1986	15	34.7	520	24.8	129
1987	20	35.5	710	22.0	156
1988	**20**	**30.0**	**600**	**23.7**	**142**

[1]Sum of island estimates may not add to State total due to rounding.

CELERY: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested					Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	9	8	11	9	8	321	228	252	183	197	29.3	24.4	21.1	22.7	24.4
February	12	8	7	6	7	345	242	247	181	191	28.8	21.7	20.2	23.1	24.5
March	10	9	8	8	7	381	272	265	254	215	23.5	18.7	20.6	22.7	23.1
April	13	11	9	11	7	391	344	240	329	208	19.6	17.4	20.5	19.0	21.0
May	10	10	8	8	8	391	363	213	302	173	16.6	17.4	23.1	17.9	22.7
June	10	10	6	8	8	382	326	240	287	196	17.2	19.4	22.7	19.7	21.9
July	10	9	10	6	7	396	355	244	220	207	17.4	19.2	20.9	20.8	20.9
August	9	12	9	7	6	347	310	212	206	176	16.6	18.8	21.2	20.1	22.3
September	9	8	8	7	8	330	255	182	227	154	16.2	20.3	21.2	18.4	25.2
October	9	8	8	7	6	309	257	184	193	134	17.2	18.4	21.5	18.7	24.5
November	8	8	7	6	6	228	238	175	165	148	18.2	20.3	22.3	22.9	23.0
December	6	9	9	7	7	229	260	226	183	201	20.2	20.4	23.3	24.1	22.5
Total or average	115	110	100	90	85	4,050	3,450	2,680	2,730	2,200	20.0	19.5	21.5	20.6	22.9

SWEET CORN: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	315	4.1	1,300	35.8	465
1985	255	4.2	1,060	36.6	388
1986	255	4.1	1,040	36.0	374
1987	345	4.3	1,480	34.2	506
1988	**185**	**3.6**	**660**	**40.1**	**265**
			HAWAII/KAUAI[2]		
1984	40	5.8	230	28.4	65
1985	35	5.1	180	31.2	56
1986	20	5.5	110	29.4	32
1987	55	5.7	315	33.4	105
1988	**50**	**3.8**	**190**	**34.2**	**65**
			MAUI/MOLOKAI		
1984	25	5.6	140	42.9	59
1985	20	4.0	80	42.3	34
1986	15	6.0	90	39.0	35
1987	15	5.7	85	40.5	34
1988	**15**	**5.7**	**85**	**40.1**	**34**
			OAHU		
1984	250	3.7	930	36.7	341
1985	200	4.0	800	37.2	298
1986	220	3.8	840	36.5	307
1987	275	3.9	1,080	34.0	367
1988	**120**	**3.2**	**385**	**43.0**	**166**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai combined with Hawaii to avoid disclosure of individual operations.

SWEET CORN: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested					Production[1]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	12	16	11	18	4	43	60	43	31	21	36.7	37.0	37.3	33.7	33.0
February	12	15	14	17	3	40	53	66	54	16	37.9	37.0	36.3	37.3	34.1
March	19	14	18	26	5	88	47	113	126	22	45.3	38.0	39.0	41.5	38.9
April	22	16	22	33	13	95	78	75	140	69	36.5	39.4	38.1	40.7	42.9
May	25	22	24	35	17	105	120	100	135	64	36.2	38.9	39.6	38.1	40.6
June	22	27	24	37	15	135	127	98	198	70	37.3	37.8	34.8	30.8	42.2
July	40	29	35	34	16	171	132	131	215	76	37.4	36.4	31.2	30.9	43.1
August	42	27	22	40	22	129	129	83	176	81	40.2	36.4	32.5	31.8	44.6
September	37	23	26	34	26	135	77	99	130	79	37.1	33.6	38.0	34.6	38.2
October	31	22	21	25	26	105	71	88	122	70	28.6	34.6	36.6	33.3	38.6
November	30	29	23	33	25	152	119	85	112	52	28.5	34.9	34.3	29.3	35.8
December	23	15	15	13	13	102	47	59	41	40	31.2	32.9	35.7	32.9	35.2
Total or average	315	255	255	345	185	1,300	1,060	1,040	1,480	660	35.8	36.6	36.0	34.2	40.1

[1]Sum of monthly estimates may not add to annual total due to rounding.

CUCUMBERS

CUCUMBERS: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	230	21.2	4,870	27.7	1,349
1985	260	16.2	4,200	29.7	1,247
1986	220	16.9	3,720	31.8	1,183
1987	200	19.8	3,960	28.2	1,117
1988	**220**	**18.0**	**3,950**	**33.0**	**1,304**
			HAWAII		
1984	100	30.6	3,060	26.1	799
1985	95	23.2	2,200	27.2	598
1986	70	23.1	1,620	28.1	455
1987	85	24.9	2,120	24.4	517
1988	**75**	**22.8**	**1,710**	**29.1**	**498**
			KAUAI		
1984	15	16.0	240	29.0	70
1985	15	14.0	210	27.9	59
1986	25	11.2	280	33.4	94
1987	15	16.7	250	36.6	92
1988	**15**	**9.0**	**135**	**44.0**	**59**
			MAUI/MOLOKAI		
1984	55	12.7	700	27.8	195
1985	55	10.2	560	31.6	177
1986	50	12.0	600	33.2	199
1987	45	12.4	560	30.1	169
1988	**45**	**15.3**	**690**	**34.2**	**236**
			OAHU		
1984	60	14.5	870	32.8	285
1985	95	12.9	1,230	33.6	413
1986	75	16.3	1,220	35.6	434
1987	55	18.7	1,030	32.9	339
1988	**85**	**16.6**	**1,415**	**36.1**	**511**

[1]Sum of island estimates may not add to State total due to rounding.

CUCUMBERS: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production[2]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	46	56	23	22	17	522	296	200	215	241	25.4	35.3	37.9	33.7	38.9
February	32	21	21	24	14	387	225	262	220	213	33.4	36.8	34.3	37.7	37.8
March	28	26	22	13	22	573	228	203	231	269	32.2	33.3	38.3	37.9	37.2
April	29	23	17	20	32	351	368	231	346	391	28.6	30.4	37.2	29.9	31.6
May	27	37	17	26	28	472	425	335	468	284	27.4	27.5	32.1	22.4	33.7
June	24	33	27	24	30	356	418	376	390	320	22.5	27.4	26.3	23.0	36.1
July	24	32	25	21	34	365	489	439	427	460	23.1	29.1	24.4	26.8	30.1
August	18	28	21	24	28	342	401	349	454	451	25.7	28.0	26.6	24.0	23.3
September	26	32	23	18	29	405	484	369	336	383	26.0	26.3	29.0	28.6	32.4
October	23	26	23	22	26	330	333	353	396	338	27.9	26.6	34.7	27.9	31.9
November	27	24	19	21	25	435	270	301	278	281	27.9	29.5	34.6	26.8	36.0
December	25	21	24	18	17	332	263	302	199	269	30.4	34.4	37.6	33.2	38.0
Total or average	230	260	220	200	220	4,870	4,200	3,720	3,960	3,950	27.7	29.7	31.8	28.2	33.0

[1]Sum of monthly data exceeds total because harvest period longer than 1 month.
[2]Sum of monthly estimates may not add to annual total due to rounding.

DAIKON: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	200	15.0	3,000	17.1	513
1985	260	13.8	3,600	17.8	641
1986	260	15.0	3,900	17.6	686
1987	250	14.8	3,700	17.1	633
1988	**230**	**14.3**	**3,300**	**19.4**	**640**
			HAWAII		
1984	80	15.0	1,200	11.6	139
1985	130	13.8	1,800	14.7	265
1986	130	14.6	1,900	14.4	274
1987	145	15.2	2,200	16.1	354
1988	**135**	**14.4**	**1,950**	**16.4**	**320**
			MAUI/OAHU[2]		
1984	120	15.0	1,800	20.8	374
1985	130	13.8	1,800	20.9	376
1986	130	15.4	2,000	20.6	412
1987	105	14.3	1,500	18.6	279
1988	**95**	**14.2**	**1,350**	**23.7**	**320**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Maui combined with Oahu to avoid disclosure of individual operations.

DAIKON: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Processing and fresh market									
						Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	18	18	25	21	18	294	280	361	305	206	14.9	19.7	17.9	16.6	24.1
February	17	17	22	21	20	252	229	324	310	279	15.5	21.8	16.0	16.9	21.7
March	17	21	27	18	22	301	273	284	313	357	16.9	20.6	16.3	16.8	19.6
April	17	20	25	23	21	249	351	364	331	334	15.0	16.8	17.6	15.8	16.8
May	15	21	23	20	19	247	312	340	300	304	15.2	14.3	17.3	15.8	17.2
June	18	24	20	21	21	260	278	291	336	299	15.7	17.1	16.5	16.1	18.9
July	15	23	18	22	17	211	323	299	317	282	16.4	18.0	19.2	17.1	17.0
August	17	25	21	20	21	231	324	339	315	246	19.4	17.9	18.4	17.4	18.0
September	15	24	19	19	18	161	336	403	297	237	20.3	16.5	17.5	16.1	20.2
October	19	22	20	19	18	289	321	318	263	243	19.8	16.1	16.0	16.9	21.1
November	15	20	20	21	19	235	235	217	272	262	18.0	17.1	17.1	19.0	19.2
December	17	25	20	25	16	270	338	360	341	251	19.4	19.0	20.7	20.6	21.0
Total or average	200	260	260	250	230	3,000	3,600	3,900	3,700	3,300	17.1	17.8	17.6	17.1	19.4

[1]Sum of monthly estimates may not add to State total due to rounding.

EGGPLANT

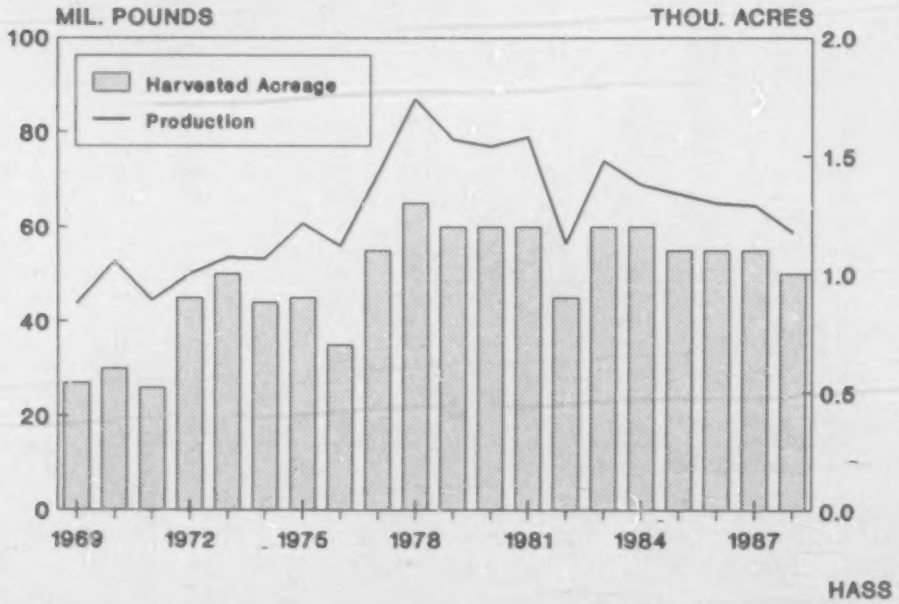
EGGPLANT: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	60	23.0	1,380	44.2	610
1985	55	24.4	1,340	51.0	683
1986	55	23.6	1,300	49.7	646
1987	55	23.5	1,290	53.4	689
1988	**50**	**23.6**	**1,180**	**55.8**	**658**
			HAWAII/MAUI/MOLOKAI[2]		
1984	15	22.0	330	41.3	136
1985	10	21.0	210	41.7	88
1986	6	20.0	120	43.2	52
1987	15	22.7	340	50.9	173
1988	**20**	**22.5**	**450**	**52.0**	**234**
			KAUAI		
1984	10	26.0	260	41.0	107
1985	10	28.0	280	48.5	136
1986	7	25.7	180	50.0	90
1987	2	12.5	25	52.5	13
1988[2]					
			OAHU		
1984	35	22.6	790	46.4	367
1985	35	24.3	850	54.0	459
1986	42	23.8	1,000	50.4	504
1987	38	24.3	925	54.4	503
1988	**30**	**24.3**	**730**	**58.1**	**424**

[1]Sum of island estimates may not add to State total due to rounding.

[2]Maui and Molokai combined with Hawaii (1984-87) to avoid disclosure of individual operations. Kauai combined with Hawaii, Maui, and Molokai beginning 1988.

EGGPLANT: Acreage and Production, State of Hawaii, 1969-88



LETTUCES (HEAD, SEMI-HEAD): Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	730	14.0	10,200	24.1	2,458
1985	650	14.5	9,400	24.9	2,341
1986	620	14.0	8,700	27.2	2,366
1987	520	13.5	7,000	27.4	1,918
1988	**360**	**12.5**	**4,500**	**36.4**	**1,638**
			HAWAII		
1984	370	11.9	4,400	19.9	876
1985	340	10.6	3,590	21.6	775
1986	280	8.9	2,500	24.5	613
1987	245	8.2	2,000	27.1	542
1988	**195**	**8.2**	**1,600**	**35.9**	**574**
			KAUAI/OAHU[2]		
1984	125	11.2	1,400	42.0	588
1985	120	13.3	1,590	36.4	579
1986	120	12.5	1,500	36.3	545
1987	95	13.9	1,320	35.9	474
1988	**70**	**17.9**	**1,255**	**43.6**	**547**
			MAUI/MOLOKAI		
1984	235	18.7	4,400	22.6	994
1985	190	22.2	4,220	23.4	987
1986	220	21.4	4,700	25.7	1,208
1987	180	20.4	3,680	24.5	902
1988	**95**	**17.3**	**1,645**	**31.4**	**517**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai combined with Oahu to avoid disclosure of individual operations.

LETTUCES (HEAD, SEMI-HEAD): Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production[1]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	69	50	59	48	33	894	686	906	674	265	27.1	30.0	28.8	28.6	55.3
February	71	56	53	49	32	1,030	705	844	711	501	26.4	27.8	23.4	29.5	40.1
March	71	56	58	52	42	1,184	954	950	879	550	22.3	25.2	23.0	26.5	32.1
April	66	56	51	48	36	1,053	998	770	829	502	20.6	21.7	23.9	22.1	30.8
May	63	61	49	49	33	1,035	951	808	726	448	21.7	21.0	27.1	23.4	30.6
June	64	54	51	47	33	994	907	753	699	438	21.8	22.8	27.9	23.7	32.0
July	63	61	51	48	25	841	849	703	582	418	22.6	22.0	28.0	25.1	33.0
August	71	52	52	42	28	916	627	638	488	314	22.1	24.1	28.5	28.7	35.5
September	56	50	52	39	25	740	609	534	429	297	23.8	27.1	31.2	30.4	37.0
October	51	48	50	30	27	545	676	565	377	282	29.4	27.2	30.1	28.1	42.2
November	46	54	50	35	22	490	635	635	301	231	31.4	27.1	28.9	35.4	42.1
December	39	52	44	33	24	478	803	594	305	254	26.7	27.3	29.7	43.3	41.8
Total or average	730	650	620	520	360	10,200	9,400	8,700	7,000	4,500	24.1	24.9	27.2	27.4	36.4

[1]Sum of monthly estimates may not add to State total due to rounding.

DRY ONIONS

DRY ONIONS: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	200	13.3	2,660	61.4	1,633
1985	165	11.5	1,890	71.6	1,353
1986	140	10.6	1,480	73.9	1,094
1987	170	11.6	1,980	72.6	1,437
1988	150	9.5	1,420	78.3	1,112
			HAWAII/KAUAI/OAHU[2]		
1984	10	11.0	110	49.8	55
1985	5	8.0	40	66.3	27
1986	10	10.0	100	67.0	67
1987	10	13.0	130	69.6	90
1988	5	12.0	60	71.4	43
			MAUI/MOLOKAI		
1984	190	13.4	2,550	61.9	1,578
1985	160	11.6	1,850	71.7	1,326
1986	130	10.6	1,380	74.4	1,027
1987	160	11.6	1,850	72.8	1,347
1988	145	9.4	1,360	78.6	1,069

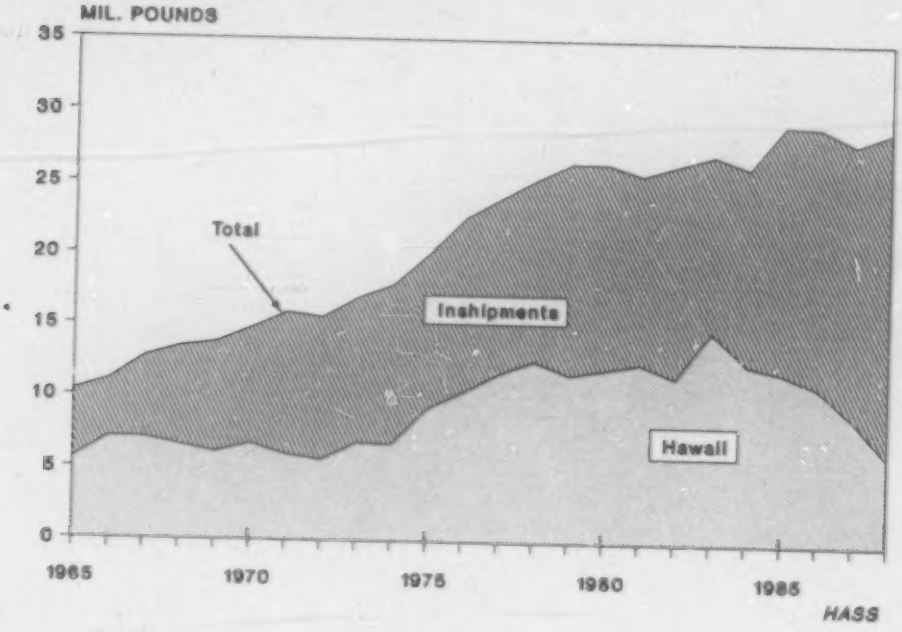
[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai and Oahu combined with Hawaii to avoid disclosure of individual operations.

DRY ONIONS: Acreage, production, and price, State of Hawaii, 1984-88

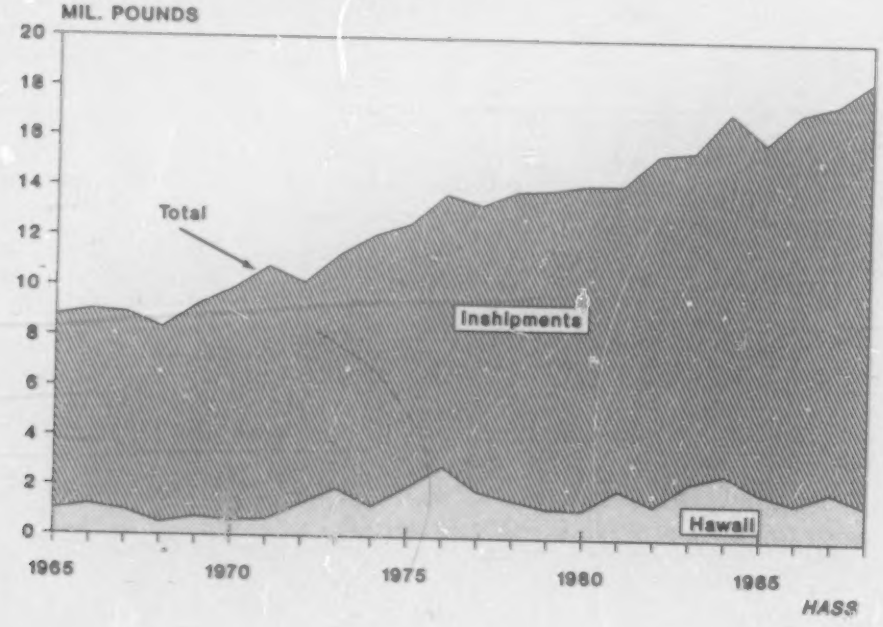
Month	Acreage harvested[1]					Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	13	12	7	14	16	128	163	115	176	67	73.6	75.6	70.7	74.1	75.7
February	15	16	23	18	16	147	150	202	157	81	66.2	85.5	62.0	66.9	80.1
March	16	11	11	19	9	326	81	163	169	123	43.4	75.6	53.7	51.6	81.2
April	18	17	14	17	15	255	221	180	217	183	44.1	79.3	71.1	59.1	90.3
May	11	23	5	18	13	189	231	122	202	193	63.3	75.9	78.1	71.8	73.0
June	14	20	7	12	15	216	209	120	191	180	62.2	62.8	85.1	78.1	71.1
July	19	19	11	23	9	249	197	132	246	110	64.0	63.8	83.7	71.4	68.3
August	17	10	11	12	11	228	133	110	177	137	60.9	66.1	80.0	80.0	76.1
September	19	10	12	10	10	213	132	106	152	106	60.1	66.6	85.4	84.5	80.4
October	16	12	8	4	11	184	142	85	70	69	56.8	66.0	83.8	77.8	79.0
November	21	7	14	10	11	292	129	58	143	80	78.5	66.6	80.5	87.1	77.8
December	19	6	17	13	14	233	102	87	80	91	74.6	75.8	77.7	83.5	88.3
Total or average	200	165	140	170	150	2,660	1,890	1,480	1,980	1,420	61.4	71.6	73.9	72.6	78.3

[1]Sum of monthly estimates may not add to State total due to rounding.

MARKET SUPPLY: Fresh Market Lettuces,
State of Hawaii, 1965-88



MARKET SUPPLY: Fresh Market Dry Onions,
State of Hawaii, 1965-88



GREEN ONIONS

GREEN ONIONS: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	170	7.3	1,240	69.7	864
1985	200	7.1	1,410	75.7	1,067
1986	190	7.6	1,440	81.3	1,171
1987	170	7.2	1,220	73.1	892
1988	**170**	**7.3**	**1,240**	**86.1**	**1,068**
			HAWAII/KAUAI[2]		
1984	15	7.0	105	67.7	71
1985	15	5.7	85	71.9	61
1986	15	6.0	90	83.9	76
1987	15	6.7	100	73.3	73
1988	**20**	**6.0**	**120**	**81.6**	**98**
			MAUI/MOLOKAI		
1984	10	12.5	125	84.1	105
1985	15	9.7	145	79.4	115
1986	10	11.0	110	81.3	89
1987	15	8.0	120	80.7	97
1988	**20**	**8.5**	**170**	**80.2**	**136**
			OAHU		
1984	145	7.0	1,010	68.1	688
1985	170	6.9	1,180	75.5	891
1986	165	7.5	1,240	81.1	1,006
1987	140	7.1	1,000	72.2	722
1988	**130**	**7.3**	**950**	**87.8**	**834**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai combined with Hawaii to avoid disclosure of individual operations.

GREEN ONIONS: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested					Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	14	17	17	20	13	106	98	117	126	58	71.4	84.4	83.0	75.6	113.0
February	12	16	16	16	8	90	104	104	116	81	77.5	89.3	80.8	70.5	107.1
March	13	15	15	15	10	96	92	124	116	100	74.0	87.9	81.0	63.8	94.6
April	13	15	15	16	12	99	102	117	114	103	70.3	77.0	83.4	64.6	88.9
May	15	17	12	12	16	115	120	134	107	102	61.2	65.7	79.4	61.3	72.9
June	15	18	14	13	14	116	128	118	115	99	58.6	64.3	77.1	59.7	68.0
July	12	17	13	15	14	101	120	117	103	99	60.3	63.8	75.8	61.8	68.6
August	15	18	17	14	16	112	135	113	91	100	69.4	66.8	77.7	76.8	77.1
September	14	17	16	11	16	93	126	115	83	117	76.7	70.9	83.2	87.4	89.0
October	15	19	17	13	17	107	127	110	87	130	74.5	77.8	82.9	87.1	86.1
November	16	16	18	13	16	112	124	123	103	124	74.7	81.7	85.4	92.2	90.1
December	16	15	20	12	18	93	134	148	59	127	71.7	85.8	85.1	95.0	90.8
Total or average	170	200	190	170	170	1,240	1,410	1,440	1,220	1,240	69.7	75.7	81.3	73.1	86.1

GREEN PEPPERS: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	110	13.3	1,460	46.7	682
1985	120	12.3	1,480	55.0	814
1986	190	10.8	2,050	43.6	894
1987	200	11.5	2,300	45.2	1,040
1988	**170**	**8.4**	**1,430**	**48.5**	**694**
			HAWAII		
1984	10	11.0	110	52.0	57
1985	13	9.2	120	54.3	65
1986	15	6.0	90	55.0	50
1987	15	7.3	110	51.3	56
1988	**10**	**9.5**	**95**	**63.6**	**60**
			KAUAI		
1984	15	15.3	230	40.3	93
1985	20	18.5	370	47.8	177
1986	30	13.7	410	40.2	165
1987[2]	12	15.0	180	52.2	94
1988[2]	**10**	**8.5**	**85**	**54.0**	**46**
			MAUI/MOLOKAI		
1984	70	12.6	880	48.0	422
1985	80	11.0	880	57.8	509
1986	130	10.2	1,330	43.2	575
1987	173	11.6	2,010	44.2	890
1988	**150**	**8.3**	**1,250**	**47.0**	**588**
			OAHU		
1984	15	16.0	240	45.8	110
1985	7	15.7	110	56.9	63
1986	15	14.7	220	47.4	104
1987[2]					
1988[2]					

[1]Sum of island estimates may not add to State total due to rounding.
[2]Oahu combined with Kauai to avoid disclosure of individual operations.

GREEN PEPPERS: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	17	33	34	48	18	118	114	148	197	48	43.3	52.7	43.4	41.6	45.3
February	20	31	29	50	14	120	103	206	187	92	52.8	63.7	36.2	38.8	43.6
March	20	35	29	34	26	84	113	177	196	211	43.3	66.3	41.2	42.3	41.3
April	30	26	30	25	37	170	169	161	234	198	37.1	65.6	53.0	39.1	55.8
May	23	17	26	32	25	232	98	160	214	197	39.8	60.2	54.9	43.8	55.0
June	20	15	26	31	28	99	114	136	235	133	48.4	59.1	49.5	70.2	56.3
July	17	22	23	24	13	81	143	139	120	47	53.0	49.2	47.8	50.1	57.5
August	10	21	21	17	17	47	109	125	104	55	57.1	48.9	40.3	45.9	52.3
September	10	17	24	22	12	72	77	136	103	44	55.6	48.0	40.8	51.6	57.4
October	16	18	26	32	22	83	111	226	221	172	51.7	45.1	40.8	43.6	37.8
November	21	20	32	40	16	106	151	210	272	123	48.6	49.6	40.4	38.2	38.4
December	32	25	40	25	31	108	178	226	217	112	58.7	50.7	40.4	41.6	52.8
Total or average	110	120	190	200	170	1,460	1,480	2,050	2,300	1,430	46.7	55.0	43.6	45.2	48.5

[1]Sum of monthly data exceeds total because harvest period longer than 1 month.

ROMAINE

ROMAINE: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE		
1984	135	17.2	2,320	21.5	499
1985	150	16.8	2,520	22.8	575
1986	160	14.4	2,300	25.2	580
1987	160	11.6	1,860	25.2	469
1988	150	11.2	1,680	33.1	556
			HAWAII		
1984	90	16.9	1,520	20.6	313
1985	95	15.3	1,450	21.6	313
1986	90	11.7	1,050	26.2	275
1987	90	7.8	700	28.7	201
1988	75	8.5	640	35.1	225
			MAUI		
1984	45	17.8	800	23.2	186
1985	55	19.5	1,070	24.5	262
1986	70	17.9	1,250	24.4	305
1987	70	16.6	1,160	23.1	268
1988	75	13.9	1,040	31.8	331

ROMAINE: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production[1]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	13	10	11	18	10	170	162	173	143	100	25.0	29.4	26.6	26.0	51.4
February	14	14	10	13	12	228	165	180	169	156	25.3	29.2	25.0	27.6	42.6
March	14	12	12	16	13	254	239	254	220	189	20.3	26.0	23.0	22.3	29.0
April	13	13	10	18	15	214	229	163	204	166	16.6	20.7	23.5	21.6	24.6
May	13	13	12	15	15	210	253	193	191	174	18.2	19.9	25.4	20.1	27.5
June	12	13	12	13	15	198	254	224	190	171	17.9	18.0	23.5	20.0	27.6
July	11	14	16	14	12	203	248	244	151	153	19.3	18.5	23.1	21.7	28.2
August	10	12	13	12	12	205	199	171	128	127	20.2	21.5	25.5	26.7	31.5
September	10	13	13	12	12	188	192	160	122	98	19.3	24.6	28.0	28.0	33.8
October	10	13	13	7	12	182	200	190	120	138	24.3	22.7	28.7	27.5	36.9
November	8	11	18	13	11	143	177	191	125	102	28.2	23.9	25.4	33.5	38.0
December	7	12	20	9	11	125	202	157	97	106	29.5	24.6	26.8	41.0	38.6
Total or average	135	150	160	160	150	2,320	2,520	2,300	1,860	1,680	21.5	22.8	25.2	25.2	33.1

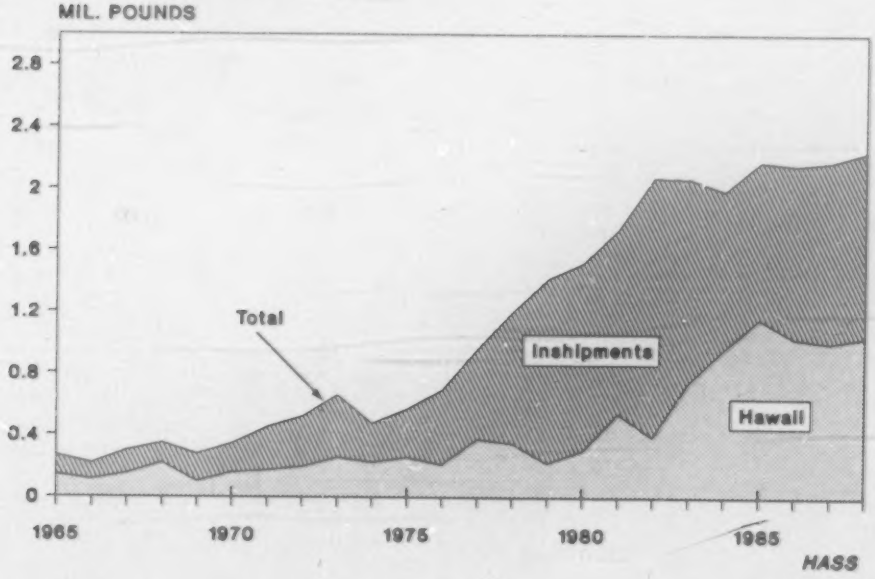
[1]Sum of monthly estimates may not add to State total due to rounding.

ITALIAN SQUASH: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	90	10.7	960	32.2	309
1985	110	10.5	1,160	31.7	368
1986	100	10.3	1,030	32.3	333
1987	90	11.1	1,000	36.4	364
1988	**100**	**10.4**	**1,040**	**36.7**	**381**
			HAWAII		
1984	40	10.0	400	30.6	122
1985	40	9.5	380	29.5	112
1986	45	8.2	370	31.0	115
1987	45	7.2	325	34.2	111
1988	**43**	**7.7**	**330**	**38.0**	**125**
			KAUAI/OAHU[2]		
1984	6	11.7	70	35.6	25
1985	4	10.0	40	35.0	14
1986	2	10.0	20	35.5	7
1987	5	13.0	65	39.0	25
1988	**1**	**15.0**	**15**	**38.3**	**6**
			MAUI		
1984	44	11.1	490	33.0	162
1985	66	11.2	740	32.7	242
1986	53	12.1	640	33.0	211
1987	40	15.3	610	37.3	228
1988	**56**	**12.4**	**695**	**36.0**	**250**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Oahu combined with Kauai to avoid disclosure of individual operations.

MARKET SUPPLY:
Fresh Market Italian Squash
State of Hawaii, 1965-88



SWEETPOTATOES

SWEETPOTATOES: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	175	9.8	1,720	27.3	470
1985	200	9.6	1,910	28.6	546
1986	210	10.0	2,100	27.1	569
1987	180	8.9	1,600	28.6	458
1988	**140**	**11.0**	**1,540**	**34.4**	**530**
			HAWAII/KAUAI[2]		
1984	15	9.3	140	27.9	39
1985	15	8.7	130	29.6	38
1986	15	10.0	150	29.8	45
1987	15	9.3	140	33.1	46
1988	**20**	**10.0**	**200**	**33.0**	**66**
			MAUI/MOLOKAI		
1984	120	9.7	1,160	24.8	288
1985	155	9.5	1,480	27.1	401
1986	165	9.6	1,590	24.6	391
1987	155	8.7	1,350	27.4	370
1988	**110**	**11.3**	**1,240**	**33.7**	**418**
			OAHU		
1984	40	10.5	420	34.1	143
1985	30	10.0	300	35.7	107
1986	30	12.0	360	37.0	133
1987	10	11.0	110	37.8	42
1988	**10**	**10.0**	**100**	**46.3**	**46**

[1]Sum of island estimates may not add to State total due to rounding.
[2]Kauai combined with Hawaii to avoid disclosure of individual operations.

SWEETPOTATOES: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested					Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	13	9	18	19	12	143	133	198	141	101	27.6	29.7	28.0	24.4	31.8
February	17	16	16	19	13	133	131	155	114	122	27.8	29.8	26.2	27.1	32.8
March	12	13	13	18	12	152	81	134	79	121	27.4	31.5	26.2	29.0	33.5
April	14	21	14	19	12	167	145	188	105	120	26.9	30.2	25.5	29.3	34.8
May	14	20	20	19	10	193	170	198	82	88	26.0	30.8	27.6	31.1	35.2
June	12	17	19	15	13	151	206	197	125	179	26.0	29.3	26.3	31.1	35.4
July	16	16	18	12	13	127	269	183	172	159	26.7	26.4	25.9	31.6	34.8
August	14	16	15	14	11	114	200	102	181	155	27.2	24.2	28.1	30.4	34.3
September	16	15	19	13	14	109	133	157	209	173	28.8	25.3	27.3	27.7	33.8
October	17	18	18	11	11	200	113	179	145	125	28.3	28.0	27.9	26.1	34.4
November	14	19	19	10	9	133	137	188	112	83	27.7	30.1	27.0	25.9	36.2
December	16	20	21	11	10	98	192	223	135	114	27.9	31.4	26.9	30.0	36.6
Total or average	175	200	210	180	140	1,720	1,910	2,100	1,600	1,540	27.3	28.6	27.1	28.6	34.4

TARO: Number of farms, acreage, marketings, price, and value, by islands, 1984-88

Year	Farms	Acreage in crop[1]			Marketings			Farm price			Value of sales
		Poi taro	Chinese taro	Total	Fresh	Processed	Total	Poi taro	Chinese taro	All	
	Number	Acres			1,000 pounds			Cents per pound			1,000 dollars
					STATE						
1984	137	350	20	370	290	6,020	6,310	21.4	34.2	21.9	1,382
1985	155	340	60	400	590	6,270	6,860	21.6	37.9	23.0	1,578
1986	140	330	60	390	490	5,840	6,330	22.2	33.9	23.1	1,462
1987	140	330	70	400	570	5,730	6,300	24.2	41.7	26.6	1,676
1988	**161**	**310**	**110**	**420**	**600**	**6,200**	**6,800**	**25.8**	**39.4**	**28.0**	**1,904**
					HAWAII						
1984	57	45	20	65	180	615	795	23.4	34.2	25.8	205
1985	72	35	50	85	390	620	1,010	23.4	37.2	28.7	290
1986	65	35	50	85	400	440	840	22.6	34.2	28.1	236
1987	68	45	65	110	510	770	1,280	23.8	42.0	35.3	452
1988	**97**	**40**	**100**	**140**	**580**	**950**	**1,530**	**25.3**	**39.3**	**34.9**	**534**
					KAUAI						
1984	50	225	[2]	225	40	4,310	4,350	21.1	[3]	21.1	918
1985	48	210	[2]	210	60	4,720	4,780	21.4	[3]	21.6	1,032
1986	50	215	[2]	215	40	4,450	4,490	22.4	[3]	22.5	1,010
1987	46	200	[2]	200	30	4,140	4,170	24.3	[3]	24.4	1,017
1988	**43**	**190**	[2]	**190**	**0**	**4,410**	**4,410**	**26.1**	[3]	**26.2**	**1,155**
					MAUI/MOLOKAI/OAHU[4]						
1984	30	80	[5]	80	70	1,095	1,165	21.3	[3]	22.2	259
1985	35	95	10	105	140	930	1,070	21.4	40.5	23.9	256
1986	25	80	10	90	50	950	1,000	21.0	32.3	21.6	216
1987	26	85	5	90	30	820	850	23.8	40.8	24.4	207
1988	**21**	**80**	**10**	**90**	**20**	**840**	**860**	**24.6**	**40.0**	**25.0**	**215**

[1]Survey conducted in November each year. Does not include acreage used primarily for leaf production.
[2]Kauai combined with Maui, Molokai, and Oahu to avoid disclosure of individual operations.
[3]Not shown separately but accounted for in State average.
[4]Oahu combined with Maui and Molokai to avoid disclosure of individual operations.
[5]Less than 5 acres.

TOMATOES

TOMATOES: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	280	27.5	7,700	40.3	3,103
1985	300	26.0	7,800	40.2	3,136
1986	240	28.0	6,700	41.0	2,747
1987	250	28.0	7,000	42.6	2,982
1988	**250**	**28.0**	**7,000**	**48.5**	**3,395**
			HAWAII		
1984	130	34.7	4,510	41.9	1,890
1985	140	33.2	4,650	41.8	1,944
1986	110	33.2	3,650	42.5	1,551
1987	90	32.7	2,940	46.4	1,364
1988	**90**	**36.2**	**3,260**	**51.8**	**1,689**
			KAUAI		
1984	5	22.0	110	54.8	60
1985	10	15.0	150	37.4	56
1986	15	16.7	250	37.6	94
1987	8	14.4	115	50.9	59
1988	**13**	**13.5**	**175**	**42.3**	**74**
			MAUI/MOLOKAI		
1984	125	21.0	2,620	35.1	920
1985	135	18.9	2,550	36.1	921
1986	105	23.3	2,450	37.7	924
1987	135	24.4	3,300	37.3	1,231
1988	**135**	**22.8**	**3,080**	**44.4**	**1,368**
			OAHU		
1984	20	23.0	460	50.7	233
1985	15	30.0	450	47.8	215
1986	10	35.0	350	50.9	178
1987	17	37.9	645	50.8	328
1988	**12**	**40.4**	**485**	**54.5**	**264**

[1]Sum of island estimates may not add to State total due to rounding.

TOMATOES: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production[2]					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	56	46	58	53	40	878	750	718	636	568	35.1	37.7	47.6	42.3	50.3
February	41	42	50	52	30	901	808	671	651	520	37.3	40.8	39.1	44.3	48.3
March	58	49	52	50	42	873	748	866	708	746	38.6	42.8	37.3	43.5	38.9
April	54	52	43	45	42	736	747	747	710	755	41.9	47.2	39.1	40.4	46.9
May	41	52	43	38	48	603	640	597	774	655	42.4	42.0	41.7	40.9	49.9
June	43	44	39	38	48	684	608	480	643	604	40.9	39.5	41.1	42.0	46.5
July	42	38	31	32	33	557	686	397	472	460	38.9	37.5	39.4	40.2	51.7
August	43	38	24	28	33	465	567	356	423	510	43.6	35.6	39.4	38.4	52.9
September	34	40	29	26	36	427	493	342	397	465	44.0	34.1	38.0	41.9	49.0
October	28	48	39	30	34	376	686	415	413	478	44.1	34.9	39.0	39.6	50.1
November	30	42	46	32	35	493	414	439	457	611	46.9	40.4	47.0	44.8	50.3
December	43	48	51	32	46	707	653	672	716	628	39.0	47.2	42.8	49.5	51.6
Total or average	280	300	240	250	250	7,700	7,800	6,700	7,000	7,000	40.3	40.2	41.0	42.6	48.5

[1]Sum of monthly data exceeds total because harvest period longer than 1 month.
[2]Sum of monthly estimates may not add to annual total due to rounding.

WATERMELONS: Acreage, yield, production, price, and value, by islands, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			STATE[1]		
1984	400	15.2	6,090	18.5	1,127
1985	480	18.3	8,800	17.0	1,496
1986	620	23.1	14,300	12.6	1,802
1987	740	18.6	13,800	11.9	1,642
1988	**790**	**23.9**	**18,900**	**11.7**	**2,211**
			HAWAII		
1984	10	6.5	65	22.4	14
1985	5	8.0	40	22.8	9
1986	10	8.5	85	16.3	14
1987	10	6.0	60	16.0	10
1988	**15**	**7.7**	**115**	**15.1**	**17**
			KAUAI		
1984	45	16.9	760	19.2	146
1985	45	10.2	460	20.3	93
1986	30	10.7	320	16.0	51
1987	25	8.0	200	19.7	39
1988	**25**	**14.6**	**365**	**15.4**	**56**
			MAUI/MOLOKAI		
1984	270	16.8	4,525	17.5	792
1985	345	20.7	7,150	16.4	1,173
1986	460	25.9	11,915	12.0	1,430
1987	575	19.9	11,470	11.2	1,285
1988	**675**	**26.2**	**17,665**	**11.4**	**2,014**
			OAHU		
1984	75	9.9	740	23.7	175
1985	85	13.5	1,150	19.2	221
1986	120	16.5	1,980	15.5	307
1987	130	15.9	2,070	14.9	308
1988	**75**	**10.1**	**755**	**16.4**	**124**

[1]Sum of island estimates may not add to State total due to rounding.

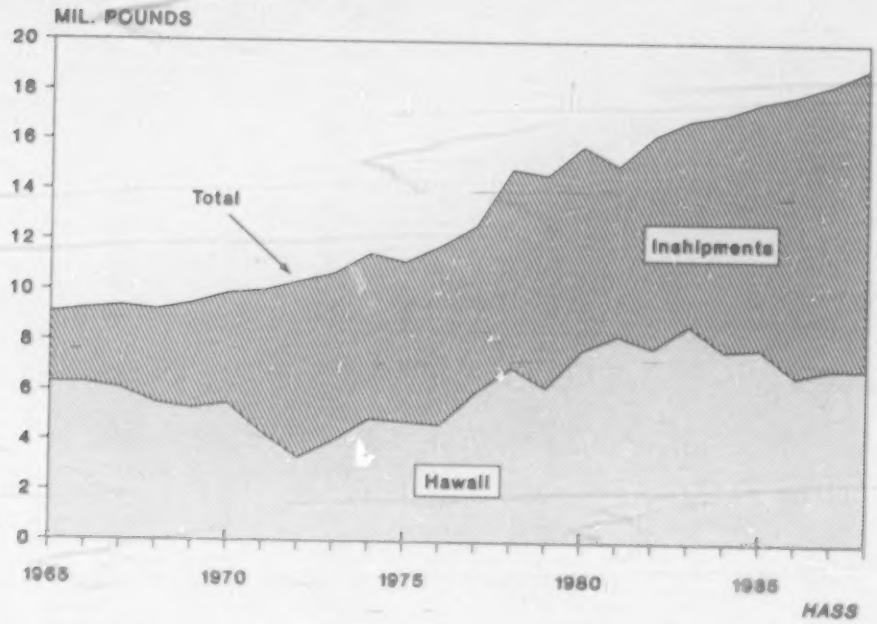
WATERMELONS: Acreage, production, and price, State of Hawaii, 1984-88

Month	Acreage harvested[1]					Production					Farm price				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	Acres					1,000 pounds					Cents per pound				
January	1	6	5	5	1	5	14	4	9	3	28.8	23.1	22.0	22.0	30.0
February	1	4	6	1	1	3	12	3	2	3	25.8	31.3	25.6	11.1	25.0
March	11	3	12	4	4	58	18	171	11	55	19.8	30.0	26.3	29.6	29.9
April	33	28	66	61	77	457	250	768	727	1,524	23.6	29.1	16.1	25.1	21.1
May	73	61	102	111	110	1,045	1,662	2,314	1,979	3,093	22.6	20.8	14.0	12.5	10.9
June	86	73	103	181	187	919	1,890	2,582	2,482	3,827	21.5	15.1	13.2	12.0	10.3
July	59	81	136	158	159	999	1,718	2,962	2,315	4,244	17.1	14.9	11.0	10.3	10.2
August	54	116	112	107	168	816	1,649	3,029	2,665	3,110	16.8	13.9	10.6	9.5	11.1
September	77	98	96	95	144	769	608	1,928	2,244	1,812	15.0	19.5	11.6	10.4	11.8
October	41	61	66	76	79	691	648	435	1,010	1,050	13.3	18.0	17.7	13.5	12.2
November	22	41	12	43	10	229	287	71	326	179	17.3	18.5	20.4	15.0	13.4
December	10	15	17	5	0	99	44	33	30	0	17.1	19.5	17.0	15.5	0
Total or average	400	480	620	740	790	6,090	8,800	14,300	13,800	18,900	18.5	17.0	12.6	11.9	11.7

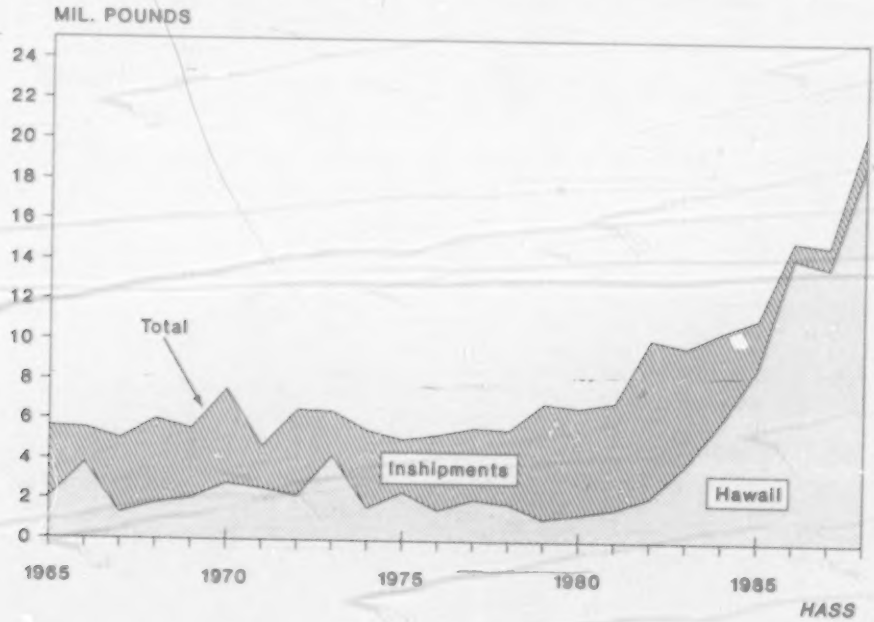
[1]Sum of monthly data exceeds total because harvest period longer than 1 month.

FRESH MARKET SUPPLY: TOMATOES AND WATERMELONS

MARKET SUPPLY: Fresh Market Tomatoes,
State of Hawaii, 1965-88



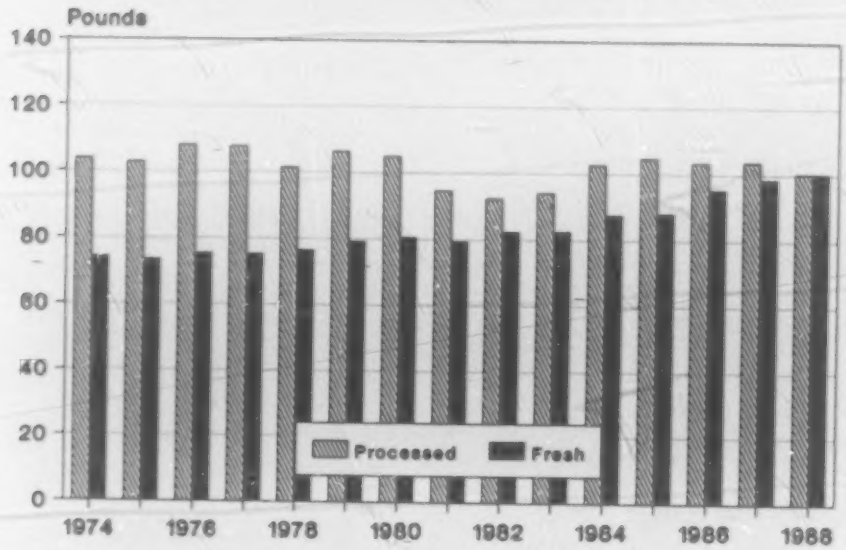
MARKET SUPPLY: Fresh Market Watermelons,
State of Hawaii, 1965-88



WATERCRESS: Acreage, production, price, and value, State of Hawaii, 1984-88

Year	Acreage in crop	Production	Farm price	Value of sales
	Acres	1,000 pounds	Cents per pound	1,000 dollars
1984	35	1,400	83.8	1,173
1985	35	1,530	79.2	1,212
1986	35	1,200	84.1	1,009
1987	40	1,230	92.9	1,142
1988	35	1,200	100.0	1,200

U.S. PER CAPITA UTILIZATION OF FRESH AND PROCESSED VEGETABLES, 1974-88



Source: ERS, USDA

PROCESSED CHINESE CABBAGE AND DAIKON

PROCESSED CHINESE CABBAGE AND DAIKON: Quantity processed, price, and value, State of Hawaii, 1984-88

Year	Chinese cabbage			Daikon		
	Quantity processed	Farm price	Value of sales	Quantity processed	Farm price	Value of sales
	1,000 pounds	Cents per pound	1,000 dollars	1,000 pounds	Cents per pound	1,000 dollars
1984	1,390	13.5	188	610	11.6	71
1985	1,330	15.7	209	560	12.3	69
1986	1,390	19.2	267	570	12.3	70
1987	1,300	19.5	254	570	12.2	70
1988	1,300	20.5	267	690	13.7	95

OTHER VEGETABLES

OTHER VEGETABLES: Acreage, yield, production, price, and value, State of Hawaii, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			BITTERMELON		
1984	25	13.2	330	57.7	190
1985	20	10.5	210	78.0	164
1986	30	10.0	300	71.7	215
1987	20	11.0	220	77.1	170
1988	**20**	**9.0**	**180**	**79.7**	**143**
			BROCCOLI		
1984	70	9.4	660	38.5	254
1985	120	8.0	960	40.0	384
1986	100	7.9	790	45.5	359
1987	80	8.4	675	45.0	304
1988	**90**	**6.1**	**550**	**47.0**	**259**
			BURDOCK		
1984	50	16.4	820	63.9	524
1985	45	16.7	750	66.8	501
1986	30	17.0	510	78.0	398
1987	30	19.3	580	87.4	507
1988	**25**	**18.0**	**450**	**90.0**	**405**
			MUSTARD CABBAGE		
1984	165	10.7	1,770	30.3	536
1985	160	9.5	1,520	32.4	492
1986	140	11.4	1,600	34.1	546
1987	140	10.4	1,450	31.8	461
1988	**120**	**10.5**	**1,260**	**40.4**	**509**
			CARROTS		
1984	15	14.7	220	21.6	48
1985	15	13.3	200	20.8	42
1986	10	16.0	160	21.7	35
1987	5	16.0	80	21.0	17
1988	**2**	**15.0**	**30**	**21.5**	**6**
			CAULIFLOWER		
1984	30	13.7	410	33.0	135
1985	60	14.2	850	38.1	324
1986	70	10.1	710	53.0	376
1987	30	10.7	320	48.4	155
1988	**45**	**10.7**	**480**	**56.0**	**269**
			DASHEEN		
1984	12	20.0	240	52.5	126
1985	10	21.0	210	50.0	105
1986	10	20.0	200	64.3	129
1987	8	19.4	155	65.0	101
1988	**10**	**22.0**	**220**	**67.0**	**147**

OTHER VEGETABLES: Acreage, yield, production, price, and value, State of Hawaii, 1984-88

Year	Acreage harvested	Yield per acre	Production	Farm price	Value of sales
	Acres	1,000 pounds		Cents per pound	1,000 dollars
			LOTUS ROOT		
1984	30	6.0	180	115.0	207
1985	35	5.3	185	134.0	248
1986	35	4.3	150	132.0	198
1987	35	4.1	145	128.0	186
1988	**30**	**6.3**	**190**	**117.0**	**222**
			PARSLEY		
1984	30	13.8	415	78.1	324
1985	25	12.4	310	80.1	248
1986	25	12.8	320	82.2	263
1987	25	12.4	310	82.6	256
1988	**25**	**11.2**	**280**	**83.5**	**234**
			CHINESE PEAS		
1984	15	5.3	80	196.5	157
1985	15	5.3	80	196.6	157
1986	15	4.7	70	165.7	116
1987	15	4.7	70	148.7	104
1988	**10**	**5.5**	**55**	**153.0**	**84**
			PUMPKINS		
1984	30	11.0	330	25.5	84
1985	20	13.0	260	22.3	59
1986	15	13.3	200	23.2	46
1987	10	14.0	140	22.9	32
1988	**8**	**11.9**	**95**	**22.0**	**21**
			RADISH		
1984	35	8.6	300	32.4	97
1985	35	8.9	310	35.9	111
1986	20	10.3	205	35.3	72
1987	30	10.7	320	37.4	120
1988	**35**	**9.3**	**325**	**39.0**	**127**
			ORIENTAL SQUASH (HYOTAN AND TOGAN)		
1984	50	13.0	650	24.0	156
1985	35	14.0	490	26.3	129
1986	30	13.3	400	30.2	121
1987	20	15.8	315	30.7	97
1988	**20**	**17.5**	**350**	**31.2**	**109**

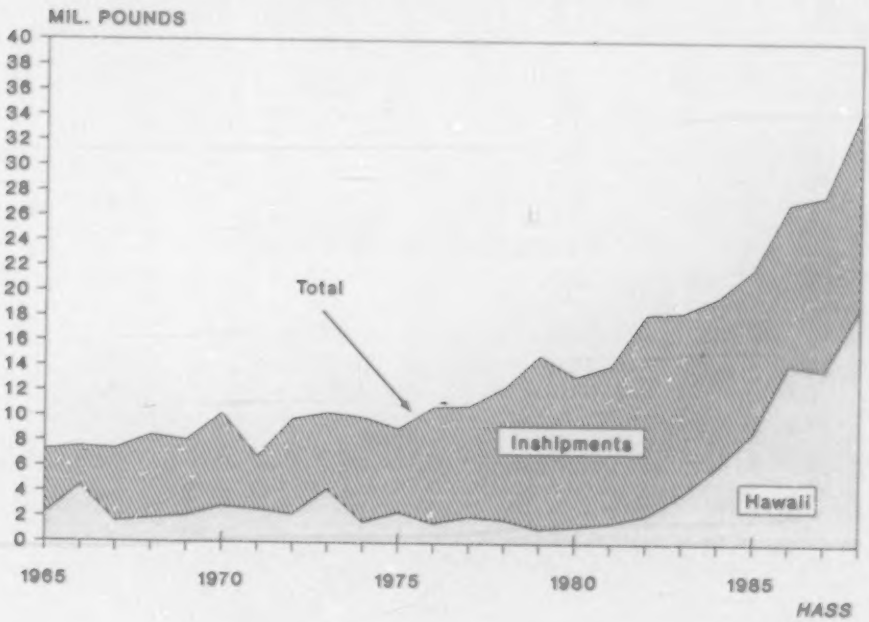
MARKET SUPPLY: FRESH MELONS

MARKET SUPPLY: Fresh market melons, State of Hawaii, 1984-88

Commodity		1984	1985	1986	1987	1988	Hawaii market share 1988
		1,000 pounds					Percent
Cantaloupes:	Inshipments	5,056	5,893	5,881	6,200	7,203	
	Hawaii	[1]	--	[2]	[2]	[2]	
Honeydew melons:	Inshipments	3,280	4,141	5,023	5,492	5,513	
	Hawaii	[1]	--	--	--	[2]	
Watermelons:	Inshipments	4,466	2,424	831	1,104	1,616	
	Hawaii	6,090	8,800	14,300	13,800	18,900	92
Other melons:	Inshipments	442	402	546	435	443	
	Hawaii	15	0	[2]	[2]	[2]	
Unspecified melons:	Inshipments[3]	287	304	574	778	781	
Total:	Inshipments	13,531	13,164	12,855	14,009	15,556	
	Hawaii	6,105	8,800	14,300	13,800	18,900	55
	All	19,636	21,964	27,155	27,809	34,456	

– = Negligible.
[1]Data included with other melons.
[2]Not shown separately and excluded from the Hawaii total to avoid disclosure of individual operations.
[3]Proration of shipments of unspecified mixed melons destined for outlying islands.
Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

MARKET SUPPLY: Fresh Market Melons, State of Hawaii, 1965-88



AGRICULTURAL LANDHOLDINGS OF FOREIGN OWNERS

Hawaii agricultural landholdings of foreign owners, December 31, 1988

State	Total land area of State[1]	Privately owned agricultural land[2]	Foreign-owned agricultural land	Proportion of foreign-owned to privately owned agricultural land
	1,000 acres		Acres	Percent
Hawaii	4,112	1,992	53,895	2.7

[1]1980 land area from geography division, Census Bureau.

[2]Privately held land based on T. Frey, unpublished data, Economic Research Service, USDA, 1979. Estimate of total land less public, Indian, transportation, and urban lands. Includes forest land, pastureland, cropland, range, and miscellaneous.

Source: Foreign ownership of U.S. agricultural land through December 31, 1988, Economic Research Service, USDA, ERS Staff Report No. AGES 89-14.

Hawaii agricultural landholdings of foreign owners, by county, December 31, 1988

State and county	Parcels	Acres	Reported value[1]
	Number		1,000 dollars
Hawaii			
Hawaii Is - Hawaii Co.	35	50,925	37,910
Oahu Is - Honolulu Co.	4	1,642	7,942
Maui Is - Maui Co.	11	1,328	25,310
Total	50	53,895	71,162

[1]Reported value is purchase price or non-purchase price (estimated value) at time of acquisition.

Source: Foreign ownership of U.S. agricultural land through December 31, 1988, Economic Research Service, USDA, ERS Staff Report No. AGES 89-14.

Hawaii agricultural landholdings by country of foreign owner, by county, December 31, 1988

State and county	Canada	Germany (West)	France	Netherlands Antilles	United Kingdom	All Others
	Acres					
Hawaii						
Hawaii Is - Hawaii Co.	845	0	0	43,703	0	6,377
Oahu Is - Honolulu Co.	0	0	0	0	0	1,642
Maui Is - Maui Co.	112	0	0	0	0	1,216
Total	957	0	0	43,703	0	9,235

Source: Foreign ownership of U.S. agricultural land through December 31, 1988, Economic Research Service, USDA, ERS Staff Report No. AGES 89-14.

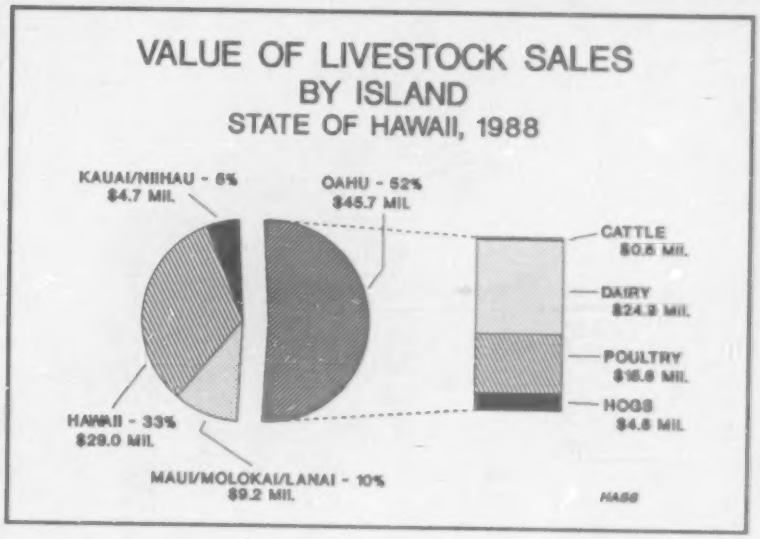
Use of Hawaii agricultural landholdings of foreign owners, by county, December 31, 1988

State and county	Crop land	Pasture	Forest	Other agriculture	Other non-agriculture	Total
	Acres					
Hawaii						
Hawaii Is - Hawaii Co.	34,490	9,917	90	4,878	1,550	50,925
Oahu Is - Honolulu Co.	3	0	0	1,109	530	1,642
Maui Is - Maui Co.	60	0	0	1,030	238	1,328
Total	34,553	9,917	90	7,017	2,318	53,895

Source: Foreign ownership of U.S. agricultural land through December 31, 1988, Economic Research Service, USDA, ERS Staff Report No. AGES 89-14.

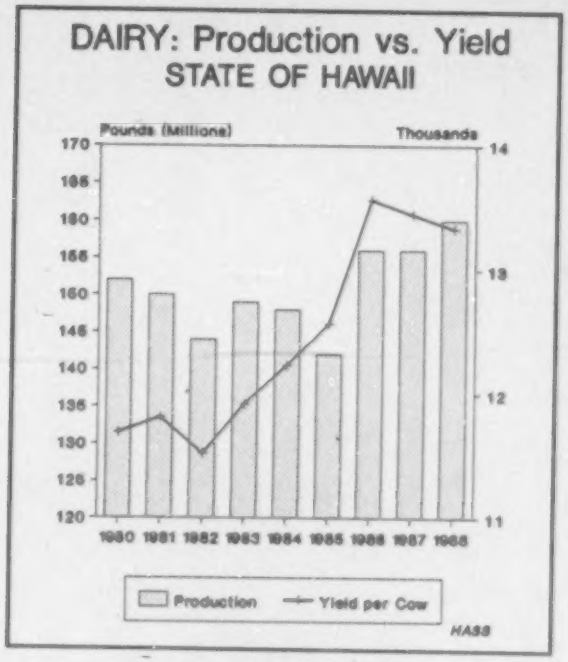
1988 LIVESTOCK SUMMARY

It was a record year for the livestock industry as 1988 farm level returns rose to **$88.6** million, surpassing the previous high set in 1981. Receipts from milk and beef sales accounted for just over two-thirds of the total. Oahu farmers grossed **$45.7** million, more than all of the islands combined.



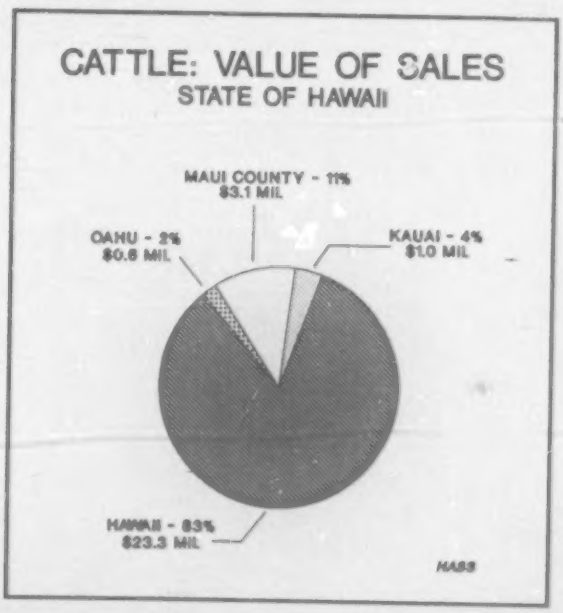
DAIRY

For the third consecutive year, the Dairy industry was the top ranked livestock enterprise with milk sales totaling **$32.2** million. Increases in both milk production and average price accounted for the 3 percent increase in cash receipts from the previous year. Milk production totaled 160.0 million pounds in 1988, 4.0 million more than in 1987. More cows in the milking herd were responsible for the increased output as production per cow declined for the second straight year.



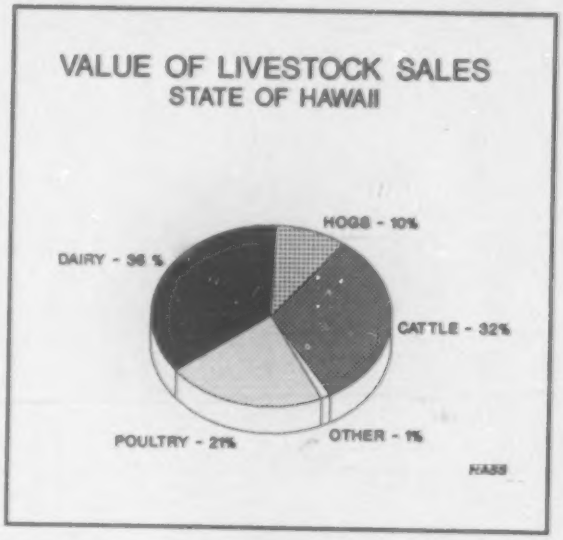
CATTLE

Farm returns from the sale of Cattle and Calves totaled **$28.0** million in 1988, 2 percent greater than 1987. All of the increase can be credited to improved prices during 1988. Beef production declined 6 percent from the previous year to 59.3 million pounds. The January 1, 1989 cattle inventory increased 9,000 head from 1988 to total 208,000 head, reflecting the ranchers continued efforts to restock their herds after several years of declining numbers.



POULTRY

Farm revenues generated by the Poultry industry fell 3 percent from the 1987 level to **$18.9** million. Although egg production increased slightly in 1988, the amount was not enough to offset a decline in the average price farmers received. Egg sales totaled 224.4 million eggs in 1988, 1.1 million more than in the previous year. Lower prices, however, resulted in revenues totaling $13.8 million in 1988 compared with $14.3 million for 1987. Number of layers on hand December 1, 1988 totaled 1,005,000 birds compared with 982,000 a year earlier. Broiler marketings totaled 9.5 million pounds in 1988, fractionally above the 1987 level. With the average price unchanged, the value of sales was $4.9 million, virtually the same as the previous year.



HOGS

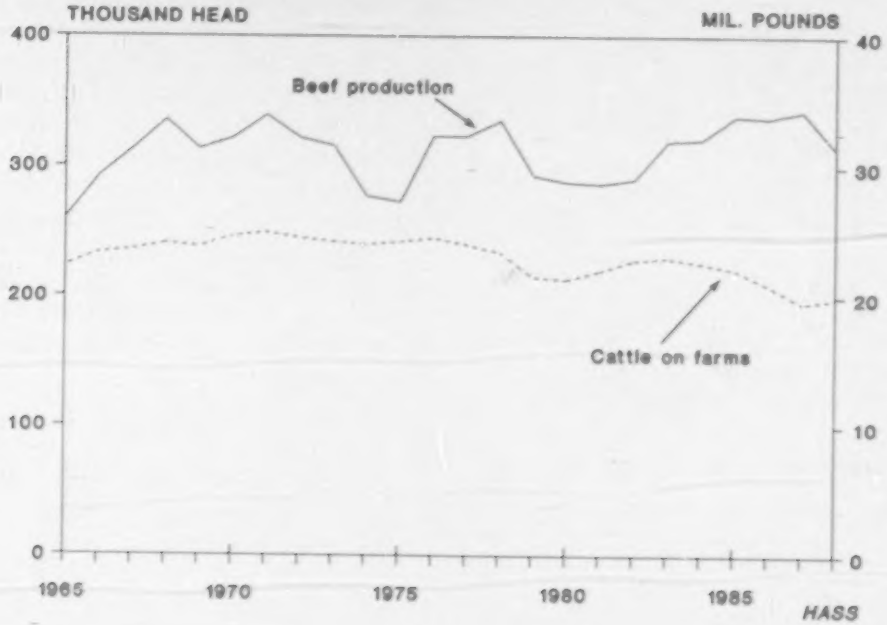
The sale of Hogs and Pigs in 1988 returned **$8.4** million to farmers, down from $8.5 million in 1987. Pork marketings during 1988 totaled 11.0 million pounds, live weight, compared with 11.2 million a year earlier. Higher prices were not enough to offset the decline in production. The total number of hogs and pigs on hand December 1, 1988, was 43,000 head, 4,000 fewer than a year earlier.

HONEY

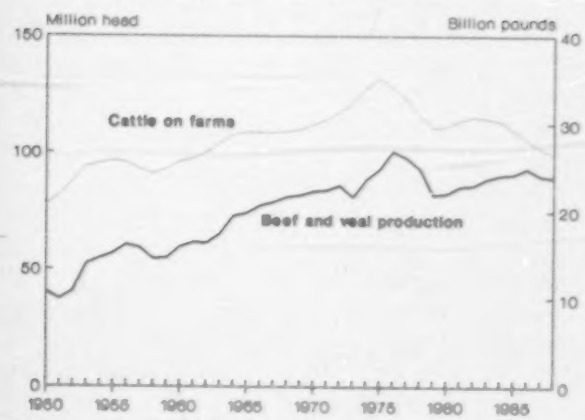
Cash receipts from the sales of Honey and Beeswax totaled **$676,000** compared with $780,000 in 1987. Honey extracted in 1988 amounted to 1.6 million pounds, down 6 percent from 1987. Average prices were also lower in 1988 compared with 1987.

CATTLE

Cattle Numbers and Beef Production, State of Hawaii, 1965-88

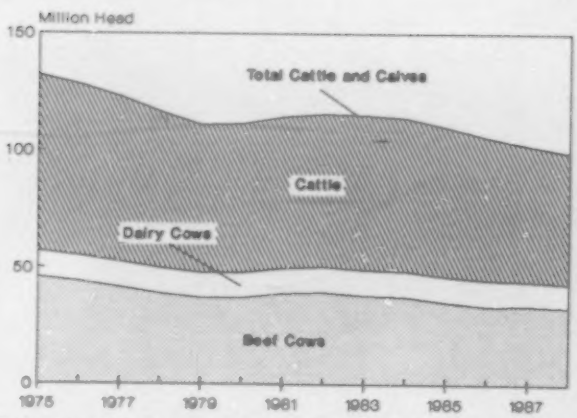


U.S. Cattle Numbers and Beef Production



1988 production forecast. Cattle and calves on farm January 1.

U.S. Cattle on Farms



Cattle on farms as of January 1. Beef cows are those that have calved. *USDA*

CATTLE AND CALVES: January 1 Inventory by sex classes and weight, by Islands, 1985-89

Year	All cattle and calves	All cows and heifers that have calved			Heifers 500 pounds and over				Steers 500 lbs. and over	Bulls 500 lbs. and over	Steers, heifers, and bulls under 500 lbs.
		Total	Beef cows	Milk cows	Total	Beef cow replace-ments	Milk cow replace-ments	Other			
	1,000 head										
STATE[1]											
1985	221	95	83	12	41	16	6	19	23	6	56
1986	209	92	81	11	39	14	5	20	20	6	52
1987	195	80	68	12	42	20	5	17	23	5	45
1988	199	85	73	12	39	15	5	19	22	5	48
1989	**208**	**89**	**77**	**12**	**36**	**14**	**4**	**18**	**21**	**5**	**57**
HAWAII											
1985	128.1	59.1	57.5	1.6	21.3	10.8	3.1	7.4	8.8	4.4	34.5
1986	123.9	57.3	55.8	1.5	20.4	9.2	2.6	8.6	8.5	4.4	33.3
1987	121.2	49.9	48.3	1.6	26.2	15.4	2.4	8.4	11.7	3.9	29.5
1988	123.1	53.7	52.0	1.7	22.4	10.7	2.2	9.5	11.7	3.4	31.9
1989	**128.7**	**57.5**	**55.8**	**1.7**	**20.9**	**10.3**	**1.6**	**9.0**	**10.0**	**3.3**	**37.0**
KAUAI/NIIHAU											
1985	14.4	5.7	5.2	.5	2.6	1.0	.3	1.3	2.0	.3	3.8
1986	15.0	5.9	5.4	.5	3.0	1.3	.3	1.4	2.0	.4	3.7
1987	14.1	5.7	5.2	.5	2.8	1.4	.2	1.2	1.9	.4	3.3
1988	13.9	6.1	5.7	.4	2.5	1.2	.2	1.1	1.5	.4	3.4
1989	**13.4**	**5.5**	**5.0**	**.5**	**2.4**	**.9**	**.1**	**1.4**	**1.6**	**.4**	**3.5**
MAUI											
1985	33.9	15.1	14.1	1.0	5.7	2.4	.5	2.8	3.0	1.0	9.1
1986	31.7	14.6	13.6	1.0	5.0	2.2	.3	2.5	2.8	.9	8.4
1987	28.5	13.2	12.2	1.0	5.0	2.5	.2	2.3	2.6	.7	7.0
1988	27.8	12.2	11.2	1.0	5.3	2.6	.2	2.5	2.0	.7	7.6
1989	**27.6**	**12.8**	**11.8**	**1.0**	**4.3**	**2.1**	**.4**	**1.8**	**1.6**	**.9**	**8.0**
MOLOKAI/LANAI											
1985	7.4	3.8	3.8	0	1.0	.7	0	.3	.5	.2	1.9
1986	5.4	3.5	3.5	0	.4	.1	0	.3	.4	.1	1.0
1987	0	0	0	0	0	0	0	0	0	0	0
1988	.7	0	0	0	0	0	0	0	.7	0	0
1989	**1.5**	**1.0**	**1.0**	**0**	**.2**	**.2**	**0**	**0**	**.3**	**0**	**0**
OAHU											
1985	37.2	11.4	2.5	8.9	10.4	.6	2.3	7.5	8.7	.4	6.3
1986	33.0	10.8	2.5	8.3	10.1	.8	2.2	7.1	6.3	.3	5.5
1987	31.2	11.2	2.6	8.6	7.9	.6	2.1	5.2	6.6	.3	5.2
1988	33.5	12.5	3.7	8.8	9.1	.7	2.4	6.0	6.0	.4	5.5
1989	**36.8**	**12.0**	**3.0**	**9.0**	**8.4**	**.4**	**2.2**	**5.8**	**7.5**	**.4**	**8.5**

[1]State totals may not add due to rounding.

CATTLE: Number of operations, by size group, by Islands, 1984-88[1]

Year	Hawaii		Kauai/Niihau		Maui		Molokai		Oahu		State	
	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle	Total	20+ cattle
	Number											
1984	395	205	165	70	190	80	25	10	75	45	850	410
1985	400	180	165	75	170	75	35	15	80	45	850	390
1986	365	170	160	60	165	70	35	10	75	40	800	350
1987	380	175	170	60	175	70	5	5	70	40	800	350
1988	**370**	**180**	**170**	**60**	**170**	**70**	**20**	**10**	**70**	**40**	**800**	**360**

[1]Difference between "Total" and "20+" is operations having 1-19 head of cattle (dairy and/or beef).

CATTLE

CATTLE AND CALVES: Number sold, pounds, price, and value, by islands, 1984-88

Year	Number sold[1]	Pounds sold (live weight)[2]	Farm price (live weight)[3]	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
		STATE		
1984	65	60,600	46.40	28,101
1985	74	65,160	40.90	26,632
1986	67	62,300	39.60	24,645
1987	62	62,940	43.50	27,401
1988	**62**	**59,300**	**47.20**	**27,984**
		HAWAII		
1984	43.0	39,802	45.50	18,126
1985	49.5	42,567	39.60	16,870
1986	42.1	41,244	39.70	16,385
1987	45.5	47,165	43.50	20,535
1988	**49.3**	**49,052**	**47.40**	**23,274**
		KAUAI/NIIHAU		
1984	4.3	3,988	51.20	2,041
1985	3.8	3,858	48.20	1,860
1986	4.1	3,844	45.10	1,734
1987	3.6	3,502	46.40	1,625
1988	**2.4**	**2,235**	**45.70**	**1,021**
		MAUI		
1984	12.0	11,134	48.20	5,364
1985	15.2	13,541	43.70	5,920
1986	13.7	11,250	41.50	4,671
1987	10.6	9,587	45.00	4,317
1988	**8.8**	**6,586**	**47.50**	**3,128**
		MOLOKAI		
1984	3.0	3,056	49.90	1,525
1985	2.5	2,307	39.00	900
1986	5.2	4,101	30.60	1,255
1987	0	0	0	0
1988	**0**	**0**	**0**	**0**
		OAHU		
1984	2.7	2,620	39.90	1,045
1985	3.0	2,887	37.50	1,082
1986	1.9	1,861	32.20	600
1987	2.3	2,686	34.40	924
1988	**1.5**	**1,427**	**39.30**	**561**

[1]Includes custom slaughter for home use on farms where produced and out-of-State sales of cattle and calves; but, excludes interfarm sales. State totals may not add due to rounding.

[2]Excludes custom slaughter for use on farms where produced.

[3]Prices are equivalent delivered slaughterhouse for sales on island of production and delivered shipper's dock for interisland and out-of-State sales.

CATTLE: Number of feedlot slaughter cattle sold, pounds, price, and value, by islands, 1984-88[1]

Year	Number sold[2]	Pounds sold (live weight)[3]	Farm price (live weight)	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
		STATE		
1984	33.8	36,245	51.80	18,781
1985	36.5	37,297	45.60	17,007
1986	33.6	35,463	44.50	15,781
1987	39.7	43,211	47.40	20,482
1988	**39.3**	**42,796**	**49.90**	**21,355**
		HAWAII		
1984	23.3	25,381	51.30	13,017
1985	25.2	26,022	44.70	11,632
1986	26.0	28,055	43.80	12,288
1987	31.9	35,413	47.00	16,644
1988	**35.2**	**38,860**	**49.80**	**19,352**
		KAUAI/NIIHAU		
1984	1.0	1,098	49.30	541
1985	1.0	1,043	44.10	460
1986	.8	840	43.10	362
1987	1.1	1,193	46.60	556
1988	**.3**	**274**	**49.80**	**136**
		MAUI		
1984	6.4	6,406	54.50	3,493
1985	8.3	8,114	48.90	3,968
1986	6.3	6,043	48.00	2,901
1987	6.4	6,221	49.80	3,098
1988	**3.7**	**3,538**	**51.00**	**1,804**
		MOLOKAI		
1984	2.4	2,614	51.50	1,346
1985	1.1	1,199	42.70	512
1986	.4	377	43.20	163
1987	0	0	0	0
1988	**0**	**0**	**0**	**0**
		OAHU		
1984	.7	746	51.50	384
1985	.9	919	47.30	435
1986	.1	148	45.30	67
1987	.3	384	47.90	184
1988	**.1**	**124**	**50.80**	**63**

[1]Animals fattened on grain or other concentrates which produce a carcass grading select or better.
[2]Includes custom slaughter for home use on farms where produced but excludes interfarm sales.
[3]Excludes custom slaughter for use on farms where produced.

CATTLE

CATTLE: Number of range and other slaughter cattle sold, pounds, price, and value, by islands, 1984-88[1]

Year	Number sold[2]	Pounds sold (live weight)[3]	Farm price (live weight)	Value of sales
	1,000 head	1,000 pounds	Dollars per hundredweight	1,000 dollars
		STATE		
1984	31.2	24,355	38.30	9,320
1985	37.5	27,863	34.50	9,625
1986	33.4	26,837	33.00	8,864
1987	22.3	19,729	35.10	6,919
1988	**22.7**	**16,504**	**40.20**	**6,629**
		HAWAII		
1984	19.7	14,421	35.40	5,109
1985	24.3	16,545	31.70	5,238
1986	16.1	13,189	31.10	4,097
1987	13.6	11,752	33.10	3,891
1988	**14.1**	**10,192**	**38.50**	**3,922**
		KAUAI/NIIHAU		
1984	3.3	2,890	51.90	1,500
1985	2.8	2,815	49.70	1,400
1986	3.3	3,004	45.70	1,372
1987	2.5	2,309	46.30	1,069
1988	**2.1**	**1,961**	**45.10**	**885**
		MAUI		
1984	5.6	4,728	39.60	1,871
1985	6.9	5,427	36.00	1,952
1986	7.4	5,207	34.00	1,770
1987	4.2	3,366	36.20	1,219
1988	**5.1**	**3,048**	**43.40**	**1,324**
		MOLOKAI		
1984	.6	442	40.50	179
1985	1.4	1,108	35.00	388
1986	4.8	3,724	29.30	1,092
1987	0	0	0	0
1988	**0**	**0**	**0**	**0**
		OAHU		
1984	2.0	1,874	35.30	661
1985	2.1	1,968	32.90	647
1986	1.8	1,713	31.10	533
1987	2.0	2,302	32.10	740
1988	**1.4**	**1,303**	**33.20**	**498**

[1]Animals fattened primarily on grass and other roughage; may include some supplementary feeding of grain. Dairy cattle; calves included.
[2]Includes custom slaughter for home use on farms where produced but excludes interfarm sales.
[3]Excludes custom slaughter for use on farms where produced.

CATTLE: Commercial slaughter and marketings, by class, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
Commercial slaughter[1]													
Number – 1,000 head[2]													
1984	4.9	4.8	4.5	4.5	4.4	4.8	5.8	5.1	4.0	5.1	4.7	4.9	57.6
1985	5.2	4.6	5.0	5.0	6.2	5.4	6.5	5.0	4.7	5.8	5.3	5.8	64.6
1986	6.4	5.0	5.6	4.9	4.8	4.6	5.8	5.1	4.7	5.1	4.6	5.3	62.0
1987	4.3	5.0	5.7	4.8	5.0	5.0	4.8	5.0	5.1	5.2	4.7	5.3	60.0
1988	**4.2**	**4.8**	**5.0**	**4.5**	**4.6**	**4.9**	**4.7**	**5.2**	**4.9**	**4.8**	**4.8**	**4.9**	**57.0**
Dressed weight – 1,000 pounds													
1984	2,721	2,692	2,536	2,475	2,398	2,608	3,072	2,783	2,137	2,656	2,458	2,624	31,160
1985	2,727	2,425	2,574	2,578	3,264	2,897	3,373	2,477	2,374	3,057	2,740	2,975	33,461
1986	3,316	2,570	2,885	2,558	2,463	2,399	3,058	2,786	2,646	2,757	2,574	2,900	32,912
1987	2,419	2,785	3,297	2,672	2,737	2,799	2,777	2,938	2,938	2,952	2,714	2,959	33,987
1988	**2,351**	**2,628**	**2,792**	**2,575**	**2,653**	**2,694**	**2,583**	**2,903**	**2,711**	**2,665**	**2,654**	**2,740**	**31,949**
Marketings[3]													
Feedlot steers and heifers, dressed weight – 1,000 pounds													
1984	2,017	1,761	1,516	1,449	1,477	1,676	2,058	1,596	1,170	1,571	1,602	2,005	19,898
1985	1,818	1,479	1,581	1,394	2,173	1,806	2,109	1,235	1,281	2,000	1,692	1,908	20,476
1986	2,189	1,656	1,397	1,463	1,108	1,240	1,735	1,577	1,705	1,746	1,711	1,942	19,469
1987	1,631	1,804	2,285	1,778	1,886	1,980	2,012	2,130	2,015	2,089	1,953	2,160	23,723
1988	**1,750**	**1,946**	**2,034**	**1,922**	**2,009**	**1,892**	**1,823**	**2,165**	**1,972**	**1,904**	**1,937**	**2,141**	**23,495**
Range steers and heifers, dressed weight – 1,000 pounds													
1984	530	407	433	527	408	400	506	534	462	528	402	467	5,604
1985	464	500	393	478	414	500	572	568	430	365	407	505	5,596
1986	451	293	601	447	464	430	586	522	447	461	387	401	5,490
1987	268	317	334	301	299	300	265	351	296	308	290	276	3,605
1988	**168**	**241**	**234**	**220**	**226**	**230**	**274**	**202**	**155**	**220**	**212**	**189**	**2,580**
Cows, dressed weight – 1,000 pounds													
1984	465	446	438	407	423	439	515	485	415	514	448	447	5,442
1985	401	403	466	598	592	526	605	591	576	561	583	552	6,454
1986	646	613	821	591	851	690	720	667	511	556	478	565	7,709
1987	493	556	597	500	486	375	417	388	571	494	428	474	5,779
1988	**313**	**305**	**395**	**302**	**286**	**432**	**343**	**422**	**468**	**442**	**401**	**280**	**4,389**
Bulls, dressed weight – 1,000 pounds													
1984	90	121	124	104	100	101	118	116	83	90	62	63	1,172
1985	83	82	173	147	124	104	126	122	126	170	96	49	1,402
1986	101	79	137	128	111	110	88	91	54	65	69	63	1,096
1987	55	136	110	122	95	173	112	98	85	90	73	79	1,228
1988	**75**	**91**	**84**	**77**	**87**	**95**	**97**	**68**	**70**	**53**	**58**	**84**	**939**

[1]Includes custom slaughter for home use. To convert dressed weight to live weight, divide dressed weight by 0.549 or multiply by a factor of 1.8215.
[2]Sum of monthly estimates may not add to annual total due to rounding.
[3]Excludes custom slaughter for home use and calves shipped out-of-State, but includes onfarm sales.

CATTLE

CATTLE: Farm price, by class, State of Hawaii, 1984-88[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Feedlot steers and heifers, dressed weight – Cents per pound												
1984.....	98.5	99.5	98.5	99.5	97.0	94.5	94.0	94.0	93.5	90.5	88.0	89.5	95.0
1985.....	87.5	88.0	88.5	88.0	85.5	87.5	80.0	77.0	72.5	79.5	82.5	85.5	83.5
1986.....	85.0	78.0	75.5	78.5	79.0	77.0	77.5	81.0	82.0	81.5	85.5	86.5	81.0
1987.....	84.0	85.0	84.5	89.0	90.0	89.5	87.5	85.5	84.0	85.0	84.5	85.5	86.0
1988	**88.0**	**90.0**	**92.0**	**94.0**	**92.5**	**89.5**	**88.0**	**89.5**	**91.0**	**90.0**	**92.0**	**93.0**	**91.0**
	Range steers and heifers, dressed weight – Cents per pound												
1984.....	80.5	80.0	78.5	75.5	77.0	83.0	80.0	82.0	80.0	79.5	78.5	81.5	79.5
1985.....	76.0	78.5	78.5	73.0	77.5	74.0	72.0	70.5	69.5	74.0	71.0	71.0	73.5
1986.....	74.0	73.5	69.5	70.5	68.0	67.0	65.0	66.0	66.5	70.5	67.0	72.5	69.0
1987.....	76.0	74.0	75.0	77.0	79.5	75.5	76.0	76.5	77.5	77.5	76.5	77.5	76.5
1988	**81.0**	**79.5**	**78.5**	**80.0**	**80.5**	**81.5**	**78.0**	**79.5**	**81.5**	**79.0**	**80.5**	**79.5**	**80.0**
	Cows, dressed weight – Cents per pound												
1984.....	64.0	64.5	61.0	60.5	58.0	60.5	59.0	57.0	61.0	52.5	55.5	55.5	59.0
1985.....	56.0	57.0	55.5	54.5	53.5	57.0	54.5	57.0	49.5	47.5	47.5	49.5	53.0
1986.....	50.5	49.5	51.5	52.0	52.5	55.5	51.0	49.0	50.0	51.0	50.5	52.5	51.5
1987.....	53.5	55.5	54.5	55.5	54.0	54.0	56.0	56.0	56.0	58.5	58.5	57.0	55.5
1988	**57.5**	**60.0**	**60.5**	**61.5**	**60.0**	**60.0**	**59.5**	**62.5**	**59.5**	**61.5**	**61.0**	**59.5**	**60.5**
	Bulls, dressed weight – Cents per pound												
1984.....	71.5	71.5	71.0	69.5	66.0	67.0	66.5	64.5	66.0	63.5	61.0	64.5	67.5
1985.....	64.5	63.0	63.0	63.5	63.5	64.0	62.5	59.5	57.5	57.5	55.5	57.0	61.0
1986.....	55.0	61.0	58.5	57.5	62.5	64.5	62.5	58.0	59.0	59.5	62.0	61.0	60.0
1987.....	59.5	61.0	58.0	61.0	61.5	62.0	65.0	62.5	62.0	65.0	70.5	62.0	62.5
1988	**64.0**	**66.0**	**67.0**	**68.0**	**66.0**	**66.5**	**67.5**	**65.0**	**67.0**	**67.0**	**65.5**	**69.0**	**66.5**
	All cattle, dressed weight – Cents per pound												
1984.....	88.5	90.0	87.5	87.0	85.5	86.0	85.0	84.0	83.5	80.5	80.0	82.0	85.0
1985.....	80.5	80.0	79.0	76.5	78.0	78.5	73.5	70.0	65.5	72.0	72.5	76.0	75.5
1976.....	76.5	71.0	67.0	70.5	67.5	69.0	69.0	70.5	73.0	73.5	76.5	77.0	72.0
1987.....	76.5	77.0	77.0	80.0	82.0	82.0	81.0	80.0	77.5	79.5	79.5	79.5	79.5
1988	**82.5**	**84.5**	**85.5**	**88.0**	**86.5**	**83.5**	**82.5**	**84.5**	**84.0**	**84.0**	**85.5**	**87.5**	**85.0**

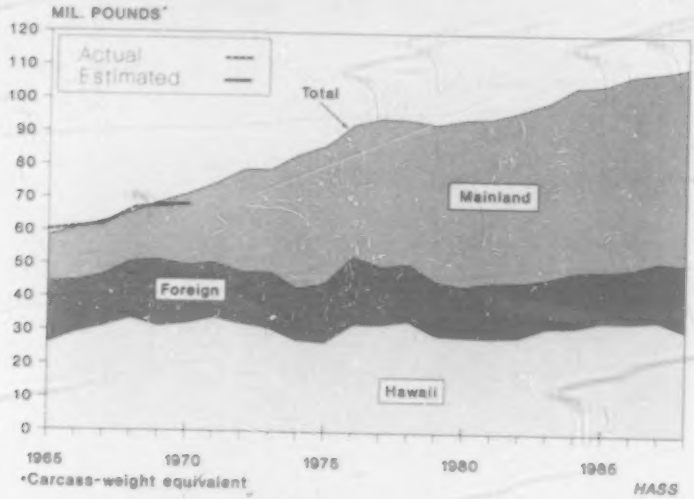
[1]Prices are for commercial slaughter cattle.

CATTLE AND CALVES: Inventory and disposition, State of Hawaii, 1984-88

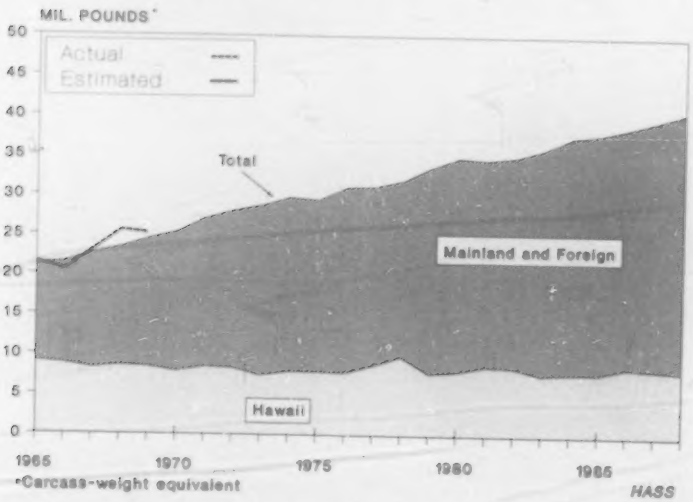
Year	Inventory beginning January 1	Calf crop	Inshipments	Marketings	Farm slaughter	Deaths	Inventory January 1 following year
	1,000 head						
1984.....	226	73	*	65	1	12	221
1985.....	221	71	1	74	1	9	209
1986.....	209	64	*	67	1	10	195
1987.....	195	71	*	62	*	5	199
1988	**199**	**76**	*	**62**	*	**5**	**208**

* = Less than 50.

MARKET SUPPLY: Beef and Veal
State of Hawaii, 1965-88



MARKET SUPPLY: Pork,
State of Hawaii, 1965-88



MARKET SUPPLY: Beef and veal, pork, State of Hawaii, 1979-88

Year	Beef and veal				Pork			
	Mainland	Foreign	Hawaii[1]	Total[2]	Mainland	Foreign	Hawaii	Total[2]
	1,000 pounds (carcass weight equivalent)							
1979	47,453	16,030	29,325	92,808	25,796	45	7,785	33,626
1980	50,348	15,202	28,809	94,359	26,685	133	8,012	34,830
1981	49,622	16,504	28,666	94,792	25,827	97	8,708	34,632
1982	51,709	16,273	29,048	97,030	26,392	27	8,557	34,976
1983	53,259	14,555	31,985	99,799	27,505	802	7,693	36,000
1984	55,724	16,548	32,116	104,388	28,739	875	7,878	37,492
1985	55,893	15,263	33,928	105,084	28,333	1,735	7,859	37,927
1986	58,519	15,764	33,764	108,047	28,022	2,021	8,643	38,686
1987	56,952	17,728	34,335	109,015	29,962	1,285	8,431	39,678
1988	**59,437**	**19,749**	**31,403**	**110,589**	**31,587**	**909**	**8,217**	**40,713**

[1]Excludes slaughter cattle and calves shipped out-of-State.
[2]After 1971 total supply was estimated and mainland inshipments derived. See page 100 for detailed explanation of the estimating procedure.

MILK

MILK: Number of operations, number of milk cows, production, sales, price, and value, by islands, 1984-88

Year	Operations[1]		Annual average milk cows	Milk per cow	Production[2]	Sold[2]	Average price	Value of sales
	Total	10+ milk cows						
	Number			Pounds	Million pounds		Dollars per hundredweight	1,000 dollars
				STATE				
1984.....	90	22	12,100	12,231	148.0	146.0	20.06	29,288
1985.....	90	20	11,300	12,566	142.0	139.8	20.25	28,310
1986.....	90	20	11,500	13,565	156.0	153.1	19.99	30,605
1987.....	90	19	11,600	13,448	156.0	153.7	20.30	31,201
1988	**90**	**19**	**12,000**	**13,333**	**160.0**	**157.1**	**20.49**	**32,190**
				HAWAII/KAUAI/MAUI[3]				
1984.....	69	6	3,000	11,835	35.5	33.8	20.13	6,803
1985.....	70	6	3,000	11,565	34.7	32.8	20.12	6,600
1986.....	70	6	3,100	12,645	39.2	36.6	19.80	7,247
1987.....	70	6	3,200	12,595	40.3	38.1	19.18	7,306
1988	**70**	**6**	**3,200**	**12,169**	**39.0**	**36.4**	**19.99**	**7,278**
				OAHU				
1984.....	21	16	9,100	12,365	112.5	112.2	20.04	22,485
1985.....	20	14	8,300	12,930	107.3	107.0	20.29	21,710
1986.....	20	14	8,400	13,905	116.8	116.5	20.05	23,358
1987.....	20	13	8,400	13,775	115.7	115.6	20.67	23,895
1988	**20**	**13**	**8,800**	**13,751**	**121.0**	**120.7**	**20.64**	**24,912**

[1]At end of year. Difference between "Total" and "10+" is operations having 1-9 milk cows.
[2]Difference between "Production" and "Sold" is milk used on farms for human consumption, fed to calves or other uses.
[3]Kauai and Maui combined with Hawaii to avoid disclosure of individual operations.

MILK-FEED RATIO, State of Hawaii, 1984-88[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Pounds											
1984.....	1.57	1.63	1.59	1.52	1.61	1.62	1.50	1.50	1.76	1.81	1.72	1.71
1985.....	1.76	1.75	1.77	1.72	1.73	1.68	1.77	1.80	1.90	1.90	1.84	1.89
1986.....	1.84	1.88	NA	1.82	NA	NA	1.78	NA	NA	2.02	NA	NA
1987.....	2.00	NA	NA	1.91	NA	NA	2.06	NA	NA	2.05	NA	NA
1988	**2.06**	**NA**	**NA**	**1.84**	**NA**	**NA**	**1.83**	**NA**	**NA**	**1.53**	**NA**	**NA**

NA = Not available. Beginning February 1986, prices paid for feed quarterly only.
[1]Pounds of 20-percent dairy feed equal in value to 1 pound of whole milk.

MILK: Number of cows, milk production, and price, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Average number of milk cows on hand during month – 1,000 head												
1984.....	12.3	12.3	12.3	12.2	12.1	12.0	11.9	12.0	12.1	12.0	12.1	12.0	12.1
1985.....	11.8	11.7	11.6	11.4	11.1	11.1	11.1	11.1	11.0	11.0	11.2	11.3	11.3
1986.....	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.7	11.8	11.8	11.9	11.5
1987.....	11.9	11.8	11.9	11.7	11.5	11.3	11.2	11.3	11.5	11.7	11.7	11.8	11.6
1988	**12.0**	**12.0**	**12.0**	**11.8**	**11.8**	**11.9**	**11.9**	**11.9**	**12.2**	**12.3**	**12.2**	**12.3**	**12.0**
	Average monthly production per all cows in herd – Pounds												
1984.....	1,050	990	1,075	1,065	1,115	1,050	1,060	1,035	925	935	940	985	12,231
1985.....	1,025	955	1,080	1,070	1,135	1,065	1,080	1,025	990	1,045	1,020	1,095	12,566
1986.....	1,150	1,080	1,210	1,200	1,230	1,165	1,165	1,095	1,015	1,060	1,040	1,120	13,565
1987.....	1,135	1,075	1,195	1,190	1,225	1,185	1,150	1,105	1,015	1,015	1,035	1,110	13,448
1988	**1,135**	**1,065**	**1,175**	**1,180**	**1,220**	**1,145**	**1,135**	**1,090**	**1,040**	**1,040**	**1,050**	**1,065**	**13,333**
	Milk production – Million pounds												
1984.....	12.9	12.2	13.2	13.0	13.5	12.6	12.6	12.4	11.2	11.2	11.4	11.8	148
1985.....	12.1	11.2	12.5	12.2	12.6	11.8	12.0	11.4	10.9	11.5	11.4	12.4	142
1986.....	13.1	12.3	13.8	13.7	14.0	13.3	13.3	12.5	11.9	12.5	12.3	13.3	156
1987.....	13.5	12.7	14.2	13.9	14.1	13.4	12.9	12.5	11.7	11.9	12.1	13.1	156
1988	**13.0**	**12.8**	**14.1**	**13.9**	**14.4**	**13.6**	**13.5**	**13.0**	**12.7**	**12.8**	**12.8**	**13.1**	**160**
	Average price for milk sold to plants – Dollars per hundredweight												
1984.....	20.83	20.78	20.27	19.80	19.58	19.79	19.41	18.78	20.67	20.79	20.16	20.05	20.06
1985.....	20.28	20.52	20.30	20.23	19.95	18.89	19.89	20.27	20.90	20.86	20.74	20.29	20.25
1986.....	20.25	20.22	20.19	19.61	19.75	18.75	19.17	20.12	20.71	20.74	20.67	19.91	19.99
1987.....	20.52	20.21	19.77	19.59	19.73	19.14	20.55	20.61	21.01	21.02	21.01	20.85	20.30
1988	**21.10**	**20.98**	**20.29**	**19.37**	**20.10**	**19.67**	**20.18**	**20.28**	**20.94**	**21.07**	**21.12**	**21.04**	**20.49**

HONEY: Number of operations, colonies, honey and beeswax production, price, and value, State of Hawaii, 1984-88

Year	Operations	Number of colonies	Yield per colony (honey)	Production		Average price[1]		Value of production	
				Honey (extracted)	Beeswax	Honey (extracted)	Beeswax	Honey	Beeswax
	Number	Thousands	Pounds	1,000 pounds		Cents per pound		1,000 dollars	
1984.....	25	9	121	1,089	17	56.1	195.0	611	33
1985.....	22	9	132	1,184	18	62.9	190.0	745	34
1986.....	20	9	147	1,323	18	56.0	155.0	741	28
1987.....	14	9	190	1,710	19	44.0	145.0	752	28
1988	**12**	**9**	**179**	**1,611**	**24**	**40.0**	**132.0**	**644**	**32**

[1]Average of unprocessed bulk and processed packaged honey sold at wholesale and processed packaged honey sold at retail by farmers.

HOGS

HOGS AND PIGS: December 1 inventory by classes and weight, by islands, 1984-88

Year	All hogs and pigs	Breeding	Market				
			Total	Under 60 lbs.	60-119 lbs.	120-179 lbs.	180 lbs. and over
				1,000 head			
				STATE[1]			
1984	47	7	40	18	11	8	3
1985	55	9	46	21	13	9	3
1986	50	8	42	19	11	8	4
1987	47	7	40	16	12	8	4
1988	**43**	**7**	**36**	**15**	**11**	**7**	**3**
				HAWAII			
1984	3.4	.6	2.8	1.6	.5	.5	.2
1985	4.8	.8	4.0	2.0	1.1	.8	.1
1986	4.9	.8	4.1	1.9	1.0	.9	.3
1987	4.4	.7	3.7	1.6	1.1	.7	.3
1988	**4.0**	**.7**	**3.3**	**1.4**	**1.2**	**.5**	**.2**
				KAUAI			
1984	3.9	.7	3.2	1.6	.7	.8	.1
1985	5.4	.9	4.5	2.0	1.3	.9	.3
1986	4.8	.8	4.0	1.7	1.4	.7	.2
1987	4.6	.7	3.9	1.6	.9	.8	.6
1988	**4.0**	**.6**	**3.4**	**1.4**	**1.1**	**.6**	**.3**
				MAUI			
1984	7.5	1.1	6.4	2.6	1.8	1.4	.6
1985	10.2	1.6	8.6	3.8	2.3	1.6	.9
1986	9.2	1.1	8.1	3.8	2.0	1.5	.8
1987	8.8	1.2	7.6	3.0	2.4	1.7	.5
1988	**7.1**	**1.1**	**6.0**	**2.5**	**1.8**	**1.3**	**.4**
				MOLOKAI/LANAI			
1984	.7	.1	.6	.2	.2	.1	.1
1985	1.0	.2	.8	.4	.2	.1	.1
1986	.7	.1	.6	.3	.2	*	.1
1987	.7	.1	.6	.3	.1	.1	.1
1988	**.6**	**.1**	**.5**	**.2**	**.2**	**.1**	*
				OAHU			
1984	31.5	4.5	27.0	12.0	7.4	5.2	2.4
1985	33.6	5.2	28.4	12.9	8.2	5.5	1.8
1986	30.4	4.8	25.6	11.6	6.6	4.9	2.5
1987	28.5	4.3	24.2	9.8	7.1	5.0	2.3
1988	**27.3**	**4.5**	**22.8**	**9.7**	**6.7**	**4.6**	**1.8**

* = Less than 50.

[1]State totals may not add due to rounding.

HOGS: Number of operations, pig crop, number and pounds sold, price, and value, by islands, 1984-88

Year	Number of operations[1]		Pig crop[2]		Number sold[3]	Pounds sold (live weight)[4]	Farm price (live weight)	Value of sales
	Total	10+	December-May	June-November				
	— Number —		1,000 head			1,000 pounds	Dollars per hundredweight	1,000 dollars
					STATE[5]			
1984	650	420	31	35	60	10,504	77.00	8,088
1985	650	430	35	41	60	10,478	76.30	7,995
1986	600	410	32	36	65	11,524	76.10	8,770
1987	600	410	30	36	63	11,241	75.70	8,509
1988	**600**	**410**	**29**	**33**	**60**	**10,956**	**76.50**	**8,381**
					HAWAII			
1984	85	55	2.4	2.9	4.7	868	84.00	729
1985	85	60	3.0	3.6	4.7	933	81.50	760
1986	80	60	3.0	3.2	5.3	997	78.00	778
1987	80	60	2.4	2.6	4.9	918	77.00	707
1988	**80**	**60**	**1.9**	**2.1**	**3.9**	**752**	**78.50**	**590**
					KAUAI			
1984	125	55	2.6	3.0	4.7	791	84.50	668
1985	120	55	3.1	4.0	5.0	919	82.50	758
1986	110	50	3.1	3.6	6.7	1,320	81.00	1,069
1987	120	50	3.3	4.0	7.0	1,393	80.00	1,114
1988	**120**	**50**	**3.5**	**3.7**	**7.3**	**1,416**	**80.50**	**1,140**
					MAUI/MOLOKAI			
1984	105	70	6.0	6.9	13.3	2,425	80.00	1,940
1985	110	75	8.3	9.8	13.7	2,404	80.50	1,935
1986	100	70	6.5	7.1	13.4	2,398	80.00	1,918
1987	100	75	6.5	7.6	13.3	2,373	81.50	1,934
1988	**100**	**75**	**6.3**	**6.8**	**13.6**	**2,561**	**81.00**	**2,074**
					OAHU			
1984	335	240	19.9	22.3	37.5	6,420	74.00	4,751
1985	335	240	21.0	23.2	36.6	6,222	73.00	4,542
1986	310	230	19.4	22.1	39.4	6,809	73.50	5,005
1987	300	225	17.8	21.8	37.5	6,557	72.50	4,754
1988	**300**	**225**	**17.5**	**20.2**	**35.2**	**6,227**	**73.50**	**4,577**

[1]Difference between "Total" and "10+" is operations having 1-9 hogs; current year number of operations is preliminary.
[2]Number of pigs born during the 6-month period which were still on hand or were sold.
[3]Excludes interfarm sales; includes custom slaughter for home use; includes direct sales on farms to consumers.
[4]Excludes custom slaughter for use on farms where produced and interfarm sales.
[5]State totals may not add for number of operations and pig crop due to rounding. Sales and value data are for the 12-month period, December of the previous year through November of the following year.

HOGS

HOGS: Commercial slaughter and farm price, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average
	Number of head – 1,000 head[1 2]												
1984.....	3.4	3.3	3.6	3.6	3.6	3.7	3.7	3.7	3.3	3.7	3.8	4.7	44.1
1985.....	3.3	3.4	3.5	3.8	3.7	3.5	3.7	3.8	3.4	3.5	3.5	4.6	43.7
1986.....	3.5	3.3	3.5	3.6	3.7	3.4	3.6	3.9	3.7	3.9	3.5	5.1	44.7
1987.....	3.6	3.4	3.7	3.6	3.5	3.9	3.7	3.6	3.4	3.7	3.5	4.7	44.3
1988	**3.1**	**3.5**	**3.7**	**3.5**	**3.6**	**3.4**	**3.6**	**3.8**	**3.7**	**3.5**	**3.6**	**4.6**	**43.6**
	Pounds slaughtered – 1,000 pounds, dressed weight[1 3]												
1984.....	484	462	505	514	524	524	518	495	442	552	534	676	6,230
1985.....	470	491	514	533	560	479	509	538	466	500	534	663	6,257
1986.....	501	471	497	513	547	503	546	530	550	601	523	760	6,542
1987.....	553	489	536	523	517	574	540	528	481	526	520	670	6,457
1988	**445**	**505**	**598**	**522**	**525**	**498**	**538**	**583**	**550**	**505**	**532**	**679**	**6,480**
	Farm price – Cents per pound, dressed weight[4]												
1984.....	99.5	104.5	101.5	102.5	103.0	101.5	102.5	102.5	104.0	105.0	102.5	101.5	102.5
1985.....	102.5	102.5	102.5	102.5	99.5	102.5	101.0	101.0	101.5	102.0	102.0	102.0	101.5
1986.....	102.0	102.0	101.5	102.5	101.0	100.0	101.5	101.5	101.5	102.0	100.5	100.5	101.5
1987.....	101.0	100.5	100.5	100.0	101.5	101.5	100.0	101.0	101.5	102.0	102.0	102.0	101.0
1988	**100.5**	**102.0**	**103.5**	**102.5**	**101.0**	**101.5**	**101.5**	**101.0**	**102.5**	**102.5**	**102.5**		**102.0**

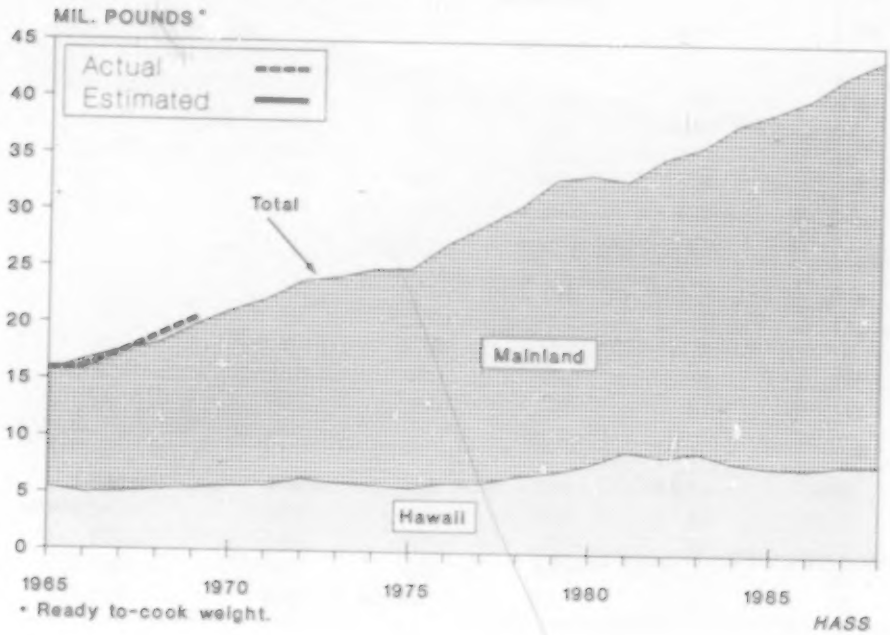
[1]Excludes non-inspected farm slaughter; includes custom slaughter and live hog inshipments from the mainland for slaughter.
[2]Sum of monthly estimates may not add to annual total due to rounding.
[3]To convert dressed weight to live weight: Divide by 0.75 or multiply by a factor of 1.3333.
[4]Annual average price is for marketing year December-November.

HOGS AND PIGS: Inventory and disposition, State of Hawaii, 1984-88

Year	Inventory December 1 previous year	Annual pig crop	Inshipments	Marketings	Farm slaughter	Deaths	Inventory December 1
	1,000 head						
1984.....	48	66	*	60	3	4	47
1985.....	47	76	*	60	3	5	55
1986.....	55	68	*	65	3	5	50
1987.....	50	66	*	63	2	4	47
1988	**47**	**62**	*	**60**	**2**	**4**	**43**

* = Less than 500 head.

MARKET SUPPLY: Chickens and Broilers, State of Hawaii, 1965-88



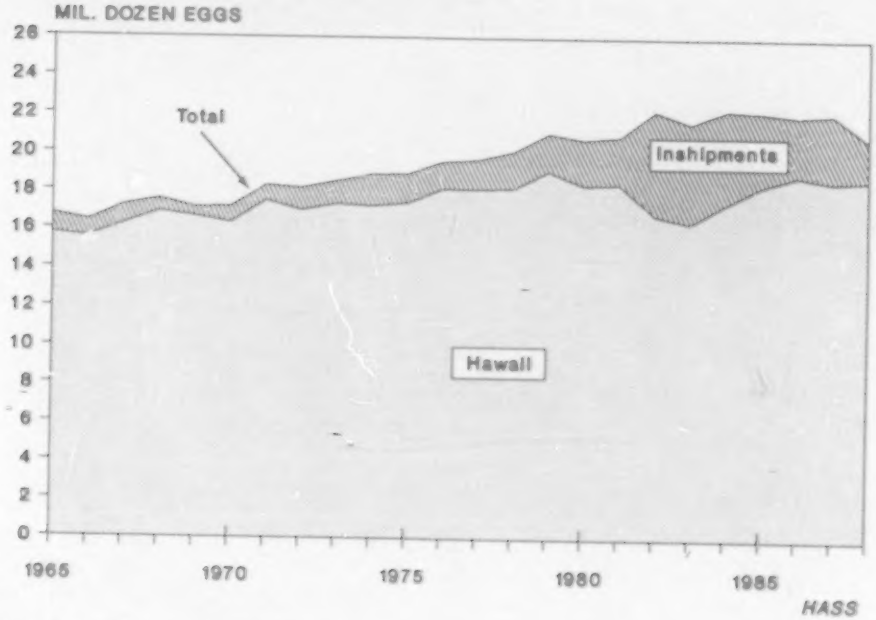
MARKET SUPPLY: Poultry meat, State of Hawaii, 1979-88

Commodity	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
	1,000 pounds (ready-to-cook weight)									
Broilers:										
Inshipments	25,795	25,455	23,850	26,357	26,932	29,785	31,305	32,619	34,335	**35,745**
Hawaii	5,896	6,569	7,673	7,534	8,023	7,346	6,723	6,692	7,106	**7,122**
Total	31,691	32,024	31,523	33,891	34,955	37,131	38,028	39,311	41,441	**42,867**
Other chickens:										
Hawaii	1,240	1,321	1,373	1,037	924	756	983	937	882	**872**
Total chickens:										
Inshipments	25,795	25,455	23,850	26,357	26,932	29,785	31,305	32,619	34,335	**35,745**
Hawaii	7,136	7,890	9,046	8,571	8,947	8,102	7,706	7,629	7,988	**7,994**
Total [1]	32,931	33,345	32,896	34,928	35,879	37,887	39,011	40,248	42,323	**43,739**

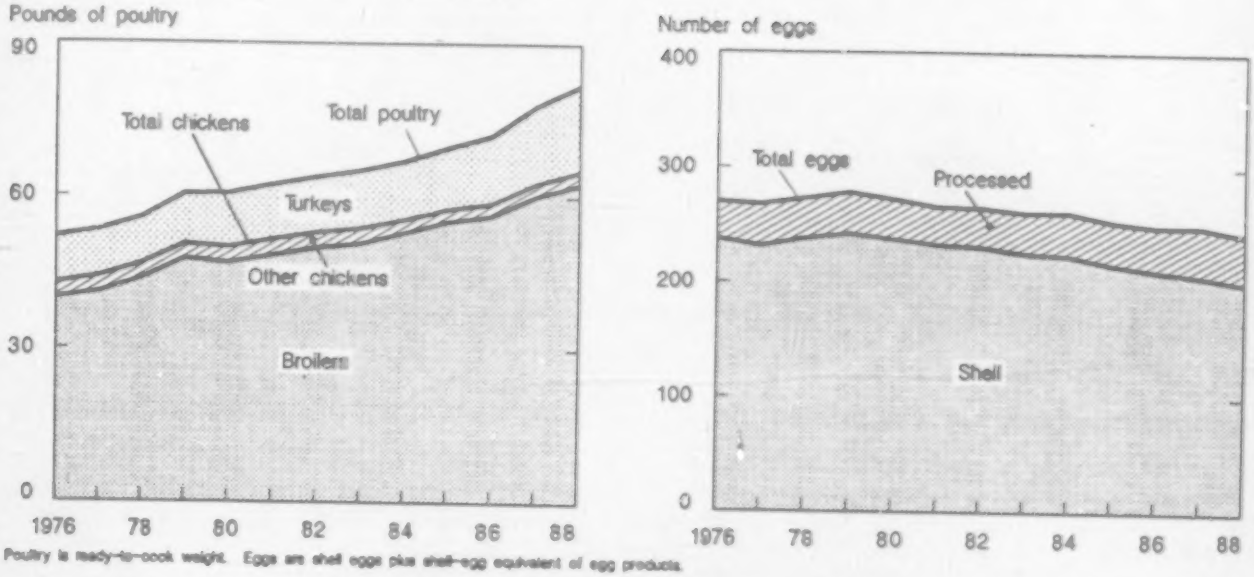
[1]Beginning 1970 total supply was estimated and mainland inshipments derived. See page 100 for detailed explanation of the estimating procedure.

MARKET SUPPLY: EGGS

MARKET SUPPLY: Eggs, State of Hawaii, 1965-88



U. S. Per Capita Consumption of Poultry and Eggs



Poultry is ready-to-cook weight. Eggs are shell eggs plus shell-egg equivalent of egg products.

MARKET SUPPLY: Eggs, State of Hawaii, 1984-88

Commodity	1984	1985	1986	1987	1988
	1,000 dozens				
Eggs, shell:					
Inshipments	4,810	3,842	3,066	3,497	2,091
Hawaii	17,475	18,375	18,917	18,608	18,700
Total	22,285	22,217	21,983	22,105	20,791

Source of inshipment data: Market News Service, Hawaii Department of Agriculture.

CHICKENS: December 1 inventory by class, by islands, 1984-88

Year	All chickens (excluding broilers)	Number of layers			Non-laying pullets		Other chickens (excluding broilers)
		Hens 1 year +	Pullets under 1 year	Total	Over 3 months	Under 3 months	
	Thousands						
	STATE						
1984	1,195	559	385	944	128	123	*
1985	1,210	609	391	1,000	92	118	*
1986	1,185	609	364	973	107	105	*
1987	1,212	598	384	982	124	106	*
1988	**1,217**	**633**	**372**	**1,005**	**135**	**77**	*
	HAWAII/KAUAI/MAUI/MOLOKAI[1]						
1984	172	73	83	156	5	11	*
1985	168	80	71	151	6	11	*
1986	206	80	112	192	9	5	*
1987	194	137	31	168	14	12	*
1988	**204**	**146**	**42**	**188**	**15**	**1**	*
	OAHU						
1984	1,023	486	302	788	123	112	*
1985	1,042	529	320	849	86	107	*
1986	979	529	252	781	98	100	*
1987	1,018	461	353	814	110	94	*
1988	**1,013**	**487**	**330**	**817**	**120**	**76**	*

* = Less than 500.
[1]Kauai, Maui and Molokai combined with Hawaii to avoid disclosure of individual operations.

EGG-TYPE PULLET CHICK PLACEMENTS, State of Hawaii, 1984-88[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 chicks												
1984	80	24	78	10	40	79	29	86	4	79	53	42	604
1985	71	25	101	8	112	15	33	72	4	117	0	23	581
1986	73	7	107	31	36	32	*	130	25	87	34	37	599
1987	76	22	94	22	0	102	35	128	49	78	15	0	621
1988	**82**	**52**	**66**	**4**	**73**	**10**	**23**	**114**	**7**	**72**	**0**	**21**	**524**

* = Less than 500.
[1]Inshipments plus local hatch.

POULTRY

CHICKENS: December 1 number of operations, sales, price, and value, by islands, 1984-88[1]

Year	Operations	Number sold	Pounds sold (live weight)[2]	Average price (live weight)[3]	Value of sales
	Number	Thousands	1,000 pounds	Cents per pound	1,000 dollars
			STATE		
1984	55	300	1,080	18.0	194
1985	55	390	1,404	16.7	234
1986	55	362	1,339	14.4	193
1987	55	350	1,260	15.2	192
1988	**55**	**346**	**1,248**	**13.8**	**172**
			HAWAII/KAUAI/MAUI/MOLOKAI[4]		
1984	35	61	214	37.4	80
1985	35	66	239	36.5	87
1986	36	65	238	34.5	82
1987	36	59	207	30.9	64
1988	**36**	**59**	**203**	**37.6**	**76**
			OAHU		
1984	20	239	866	13.2	114
1985	20	324	1,165	12.6	147
1986	19	297	1,101	10.1	111
1987	19	291	1,053	12.1	128
1988	**19**	**287**	**1,043**	**9.2**	**96**

[1]Data are for December-November marketing year.
[2]To convert live weight to ready-to-cook weight, multiply by a conversion factor of 0.70.
[3]Equivalent delivered processing plant.
[4]Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

CHICKENS: Slaughter and price, State of Hawaii, 1984-88[1]

Month	Number sold					Pounds sold (live weight)[2]					Average farm price (live weight)[3]				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	1,000 birds					1,000 pounds					Cents per pound				
December	37	21	24	29	16	133	72	87	105	60	12.0	20.0	13.5	15.0	18.0
January	25	27	41	35	29	94	103	153	130	113	18.0	17.0	12.5	12.5	13.5
February	23	36	23	25	22	81	127	89	88	79	17.0	17.0	14.0	17.0	13.0
March	8	34	14	22	15	27	124	51	80	56	24.5	18.0	23.0	16.0	16.0
April	20	41	33	35	15	74	148	125	123	51	21.5	15.5	15.0	13.5	15.0
May	21	26	30	31	35	76	97	113	107	122	22.0	19.5	13.5	16.0	10.0
June	15	43	40	24	33	55	154	144	92	122	23.0	17.0	14.5	18.0	12.0
July	17	40	42	22	21	62	145	154	81	74	22.0	15.0	13.5	15.0	15.5
August	32	31	29	21	20	111	110	103	74	72	18.5	17.5	16.0	17.5	16.5
September	35	31	36	64	21	123	107	134	228	68	17.0	17.0	13.5	14.5	16.0
October	38	22	22	15	24	139	77	80	53	82	16.0	16.0	11.5	19.0	14.0
November	29	38	28	27	32	105	140	106	99	115	16.5	14.0	17.0	14.0	12.0
Total or average	300	390	362	350	283	1,080	1,404	1,339	1,260	1,014	18.0	16.7	14.4	15.2	13.8

[1]Data are for December-November marketing year.
[2]To convert live weight to ready-to-cook weight, multiply by a conversion factor of 0.70.
[3]Equivalent delivered processing plant.

EGGS: December 1 number of operations, number of layers, production, sales, price, and value, by islands, 1984-88[1]

Year	Operations with layers		Average number of layers	Average production per layer	Production[3]	Average price[4]	Value of sales
	Total[2]	100+					
	Number		1,000 birds	Eggs	Million eggs	Cents per dozen	1,000 dollars
				STATE[5]			
1984	55	21	939	223	209.7	88.9	15,535
1985	55	20	983	224	220.5	76.3	14,020
1986	55	21	987	230	227.0	71.1	13,450
1987	55	21	975	229	223.3	76.8	14,291
1988	**55**	**21**	**1,016**	**221**	**224.4**	**73.8**	**13,801**
				HAWAII/KAUAI/MAUI/MOLOKAI[6]			
1984	35	8	143	224	32.0	102.0	2,726
1985	35	7	145	235	34.1	89.5	2,543
1986	36	9	154	242	37.3	78.0	2,428
1987	36	9	176	247	43.5	83.0	3,009
1988	**36**	**9**	**182**	**239**	**43.5**	**81.0**	**2,936**
				OAHU			
1984	20	13	796	223	177.7	86.5	12,809
1985	20	13	838	222	186.4	74.0	11,477
1986	19	12	833	228	189.7	69.5	11,022
1987	19	12	799	225	179.8	75.5	11,282
1988	**19**	**12**	**834**	**217**	**180.9**	**72.0**	**10,865**

[1]Annual number of layers, egg production sales, price, and value are a December-November marketing year.
[2]Difference between "Total" and "100+" is operations having 1-99 layers.
[3]Home consumption less than 0.5 million eggs included.
[4]Equivalent delivered processing plant.
[5]Sum of island estimates may not add to State total due to rounding.
[6]Kauai, Maui, and Molokai combined with Hawaii to avoid disclosure of individual operations.

EGGS: Number of layers, production, and price, State of Hawaii, 1984-88

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total or average[1]
	Average number of layers on hand during month – 1,000 layers												
1984.....	908	920	928	944	950	949	958	970	961	934	933	958	939
1985.....	980	975	961	972	987	991	983	983	993	1,003	1,005	1,007	983
1986.....	1,011	999	1,008	1,010	986	972	948	952	979	990	984	978	987
1987.....	973	957	973	985	969	969	973	984	978	973	985	985	975
1988	**1,004**	**1,014**	**1,034**	**1,045**	**1,035**	**1,035**	**1,016**	**1,013**	**1,010**	**999**	**1,004**		**1,016**
	Egg production – Million eggs[2]												
1984.....	17.4	16.4	18.0	17.4	18.2	18.1	18.7	18.2	16.8	16.5	16.4	18.5	209.7
1985.....	18.8	16.5	18.0	17.7	18.8	18.3	18.9	19.0	18.5	19.0	18.5	19.0	220.5
1986.....	19.3	17.9	19.9	19.7	19.5	18.3	18.9	18.7	18.3	19.2	18.3	18.6	227.0
1987.....	18.6	17.2	19.6	19.0	19.5	18.5	19.0	18.8	17.8	18.5	18.2	19.2	223.3
1988	**19.2**	**17.0**	**18.7**	**19.2**	**19.4**	**18.4**	**18.9**	**19.0**	**18.4**	**18.7**	**18.3**		**224.4**
	Average farm price – Cents per dozen[3]												
1984.....	90.0	91.0	91.5	96.5	96.0	91.5	89.5	89.5	84.0	82.0	83.0	87.0	88.9
1985.....	89.0	86.0	87.5	85.0	79.5	74.0	69.5	70.5	65.0	62.0	62.5	62.5	76.3
1986.....	71.0	70.5	72.5	73.5	73.0	71.5	72.5	72.0	71.0	72.0	71.0	76.0	71.1
1987.....	76.0	74.5	79.5	78.5	78.5	78.0	77.5	76.5	75.5	76.0	75.0	77.5	76.8
1988	**79.0**	**77.0**	**76.5**	**76.5**	**73.5**	**72.5**	**72.0**	**69.0**	**70.5**	**72.5**	**69.5**		**73.8**

[1]Annual data are for a December-November marketing year.
[2]Annual totals may not add due to rounding.
[3]Equivalent delivered processing plant.

EGG-FEED RATIO, State of Hawaii, 1984-88[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Pounds											
1984.....	6.1	7.1	7.1	7.2	7.6	7.5	7.0	7.0	7.0	6.9	6.8	6.9
1985.....	7.4	7.2	7.3	7.1	6.6	6.4	6.0	6.1	5.7	5.5	5.6	5.6
1986.....	6.3	6.3	NA	6.5	NA	NA	6.6	NA	NA	6.7	NA	NA
1987.....	7.7	NA	NA	7.7	NA	NA	7.6	NA	NA	7.5	NA	NA
1988	**7.4**	**NA**	**NA**	**7.3**	**NA**	**NA**	**6.6**	**NA**	**NA**	**6.3**	**NA**	**NA**

NA = Not available. Beginning February 1986 prices paid for feed quarterly only.
[1]Number of pounds of laying feed, equivalent in value to 1 dozen eggs.

BROILER-TYPE CHICK PLACEMENTS, State of Hawaii, 1984-88[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total
	1,000 chicks												
1984.....	206	245	213	250	304	230	217	236	206	261	215	217	2,800
1985.....	255	191	194	198	224	201	219	187	180	231	205	217	2,502
1986.....	213	199	185	198	196	183	219	184	193	215	217	232	2,434
1987.....	184	193	202	245	209	200	241	186	210	194	188	242	2,494
1988	**183**	**201**	**134**	**216**	**207**	**217**	**230**	**243**	**231**	**198**	**240**	**190**	**2,490**

[1]Inshipments plus local hatch.

BROILERS: December 1 number of operations, sales, price, and value, State of Hawaii, 1984-88[1]

Year	Operations	Number sold[2]	Pounds sold (live weight)[2 3]	Average price (live weight)[4]	Value of sales[2]
	Number	Thousands	1,000 pounds	Cents per pound	1,000 dollars
1984	8	2,647	9,794	51.0	4,995
1985	7	2,359	8,964	52.0	4,661
1986	8	2,288	8,923	51.0	4,551
1987	8	2,311	9,475	52.0	4,927
1988	**8**	**2,261**	**9,496**	**52.0**	**4,938**

[1]Data are for December-November marketing year.
[2]Includes home consumption which is less than 1 percent of production.
[3]To convert live weight to ready-to-cook weight, multiply by a conversion factor of 0.75.
[4]Equivalent delivered processing plant.

BROILERS: Slaughter and price, State of Hawaii, 1984-88[1]

Month	Number sold[2]					Pounds sold (live weight)[2 3]					Average farm price (live weight)[4]				
	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988	1984	1985	1986	1987	1988
	1,000 birds					1,000 pounds					Cents per pound				
December	202	252	216	240	**148**	719	947	837	989	**654**	50.5	51.0	51.0	50.5	**49.0**
January	258	181	202	189	**172**	966	634	785	782	**725**	51.0	50.0	51.0	51.0	**50.5**
February	211	182	186	160	**184**	822	695	738	664	**760**	51.0	51.0	50.0	53.5	**51.0**
March	240	196	189	166	**194**	906	752	768	681	**798**	51.0	53.0	51.0	52.5	**51.0**
April	226	171	202	187	**172**	797	680	825	754	**709**	51.0	53.5	51.0	53.5	**52.0**
May	247	219	183	221	**191**	837	899	751	948	**806**	51.5	54.5	51.5	52.0	**51.0**
June	206	218	199	204	**194**	744	864	813	812	**817**	51.5	53.5	51.5	52.0	**53.5**
July	219	207	195	193	**196**	828	774	754	785	**826**	51.5	50.5	50.0	52.0	**54.0**
August	247	203	181	198	**206**	919	730	633	832	**850**	51.0	51.5	51.5	51.5	**54.0**
September	178	176	170	177	**208**	679	651	619	661	**855**	51.0	51.0	51.0	52.5	**52.5**
October	205	192	190	186	**197**	750	701	706	764	**830**	50.5	51.5	50.0	52.5	**51.5**
November	208	162	175	190	**199**	827	637	694	803	**866**	50.5	52.0	51.0	51.0	**51.5**
Total or average	2,647	2,359	2,288	2,311	**2,261**	9,794	8,964	8,923	9,475	**9,496**	51.0	52.0	51.0	52.0	**52.0**

[1]Data are for December-November marketing year.
[2]Includes home consumption which is less than 1 percent of production.
[3]To convert live weight to ready-to-cook weight, multiply by a conversion factor of 0.75.
[4]Equivalent delivered processing plant.

BROILER-FEED RATIO, State of Hawaii, 1984-88[1]

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.
	Pounds											
1984	3.0	3.2	3.2	3.2	3.2	3.2	3.2	3.4	3.5	3.6	3.6	3.6
1985	3.6	3.6	3.8	3.8	3.9	3.9	3.7	3.8	3.7	3.8	3.9	3.8
1986	3.8	3.7	NA	3.8	NA	NA	3.7	NA	NA	3.9	NA	NA
1987	4.0	NA	NA	4.0	NA	NA	4.0	NA	NA	3.9	NA	NA
1988	**3.7**	**NA**	**NA**	**3.7**	**NA**	**NA**	**3.6**	**NA**	**NA**	**3.1**	**NA**	**NA**

NA = Not available. Beginning February 1986 prices paid for feed quarterly only.
[1]Number of pounds of broiler grower equal in value to 1 pound of broiler live weight.

FEED PRICES

FEED PRICES: Average price paid by farmers for feed, State of Hawaii, 1984-88

Year	Jan.	Apr.	July	Oct.	Annual average
			Dollars per ton		
			CHICK STARTER		
1984	295	295	290	255	284
1985	255	255	245	240	249
1986	240	240	245	235	240
1987	230	230	230	235	231
1988	**250**	**255**	**270**	**290**	**266**
			BROILER GROWER		
1984	335	320	320	285	315
1985	280	280	275	270	276
1986	270	270	270	255	266
1987	255	255	255	260	256
1988	**275**	**280**	**300**	**330**	**296**
			LAYING FEED		
1984	265	255	260	245	256
1985	240	240	230	225	234
1986	225	225	220	215	221
1987	210	210	210	210	210
1988	**220**	**220**	**240**	**250**	**233**
			DAIRY FEED, 20-PERCENT PROTEIN		
1984	265	260	250	230	251
1985	230	235	225	220	228
1986	220	215	215	205	214
1987	205	205	200	205	204
1988	**205**	**210**	**220**	**275**	**228**
			ROLLED BARLEY		
1984	208	205	204	185	201
1985	183	182	173	167	176
1986	163	158	135	126	146
1987	126	117	119	121	121
1988	**121**	**121**	**141**	**191**	**144**
			ROLLED CORN		
1984	219	220	229	210	220
1985	201	201	197	188	197
1986	188	187	185	174	184
1987	174	164	165	167	168
1988	**171**	**179**	**193**	**220**	**191**
			ALFALFA PELLETS		
1984	182	186	192	185	186
1985	190	180	184	185	185
1986	178	191	178	177	181
1987	176	176	163	159	169
1988	**169**	**173**	**173**	**173**	**172**
			PINEAPPLE BRAN		
1984	140	140	147	147	144
1985	147	147	140	140	144
1986	140	119	119	119	124
1987	119	119	119	119	119
1988	**119**	**119**	**131**	**135**	**126**

FEED: Inshipments from all sources, State of Hawaii, 1984-88

Commodity	1984	1985	1986	1987[1]	1988[1]
			Tons		
Feed Grains					
Barley[2]	50,781	41,524	42,292		
Corn	35,125	32,459	24,175		
Mixed	66	232	291		
Oats	759	663	276		
Sorghum	214	213	242		
Wheat	1,501	3,300	1,106		
Total	88,446	78,391	68,382		
Mixed Feeds					
Calf	411	598	641		
Cattle	5,381	3,346	1,617		
Dairy	5,380	3,032	2,830		
Horse	1,686	2,452	1,726		
Pigeon	604	673	159		
Poultry (including scratch)	5,178	5,364	4,335		
Rabbit	30	34	38		
Swine	3,096	2,860	3,158		
Other mixed	35	94	23		
Total	21,801	18,453	14,527		
Alfalfa Products					
Cubes, pellets, and hay	[2]32,279	[2]24,087	19,495		
Protein Feeds					
Copra products[3]	1,376	972	257		
Cottonseed products[2]	9,099	8,316	8,180		
Cottonseed, whole	[2]6,946	5,496	[2]6,923		
Meat and bone meal	1,351	1,353	861		
Rape seed products	[3]511	0	0		
Soybean meal	10,281	12,320	8,700		
Other protein	0	[2]169	458		
Total	29,564	28,626	25,379		
Other Feedstuff					
Almond hulls and pellets	4,602	5,793	1,501		
Beet pulp and pellets	301	1,742	3,265		
Cassava (Tapioca) pellets	0	[3]4,629	0		
Corn gluten	0	618	2,645		
Cottonseed hulls and pellets	[2]1,334	427	830		
Grain screenings and pellets	4,626	1,784	201		
Grass forage	1,473	0	0		
Rye grass screenings	749	240	0		
Miscellaneous/unspecified	6,439	5,369	5,141		
Total	19,524	20,602	13,583		
Total Feed Inshipments	191,614	170,159	141,366		

[1]Data not available. Discontinued beginning 1987.
[2]Includes foreign.
[3]Foreign.
Source: Market News Service, Hawaii Department of Agriculture.

AGRICULTURAL EMPLOYMENT: Workers on farms, State of Hawaii, annual averages, 1984-88[1]

Year	Total farm employment			Hired workers by type of farm		
	Self employed farm operators	Unpaid family members	Hired workers	Sugar	Pineapple	Other
1984	2,200	1,300	11,800	4,650	2,550	4,700
1985	2,200	1,200	10,600	4,150	1,950	4,400
1986	2,050	1,200	9,700	3,975	2,025	3,675
1987	2,600	1,100	10,700	3,810	2,050	4,750
1988	2,600	1,100	10,300	3,740	1,810	4,725

[1]Due to program changes annual averages are not comparable. Average for 1984 July and October; and 1985, 1986, 1987, and 1988 average of January, April, July, and October surveys.

AGRICULTURAL EMPLOYMENT: Total workers on farms, State of Hawaii, 1988[1]

Island	Self employed farm operators				Unpaid workers[2]				Hired workers			
	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.
Hawaii	1,750	1,850	1,800	1,600	600	600	700	1,000	3,700	3,300	3,900	3,850
Kauai	150	150	150	100	50	50	50	100	1,250	1,250	1,200	1,250
Maui/Molokai/ Lanai	250	250	250	250	100	150	100	150	2,450	2,650	2,900	2,600
Oahu	450	500	500	450	150	150	150	250	2,600	2,600	3,000	2,600
State[3]	2,600	2,750	2,700	2,400	900	950	1,000	1,500	10,000	9,800	11,000	10,300

[1]Estimates for week which includes 12th of each survey month. [2]Includes family members and others working 15 or more hours per week. [3]Sum of island estimates may not add to State total due to rounding.

AGRICULTURAL EMPLOYMENT: Hired workers by type of farm, State of Hawaii, 1988[1]

Island	Sugar				Pineapple				Other			
	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.	Jan.	Apr.	Jul.	Oct.
Hawaii	1,200	1,200	1,300	950	--	--	--	--	2,500	2,200	2,600	2,900
Kauai	1,000	1,000	1,000	1,000	--	--	--	--	250	250	200	250
Maui/Molokai/ Lanai	1,050	1,100	1,050	1,150	900	1,100	1,250	950	500	450	600	500
Oahu	450	500	500	500	750	700	900	700	1,400	1,300	1,600	1,400
State[2]	3,700	3,800	3,850	3,600	1,650	1,800	2,150	1,650	4,650	4,200	5,000	5,050

-- = Negligible or not applicable. [1]Estimates for week which includes 12th of each survey month. [2]Sum of island estimates may not add to State total due to rounding.

AGRICULTURAL EMPLOYMENT: Wage rates by method of pay and type of work, State of Hawaii, 1988[1]

Type of work performed	Hawaii				Annual average		
	Jan.	Apr.	Jul.	Oct.	Hawaii	California	U.S.
	Dollars/hour						
All hired farm workers	8.18	7.96	7.76	7.78	7.91	6.02	5.02
Field and Livestock workers	7.40	7.34	7.41	7.31	7.37	5.57	4.72
Supervisors	11.48	11.90	10.83	11.11	11.33	10.36	7.86
Others	8.64	8.25	7.44	7.45	7.97	[2]	6.69

[1]Perquisites such as room and board, housing, etc., are provided some workers in all categories, except where footnoted otherwise, in addition to wage rates shown. [2]Insufficient data.

DEFINITION OF TERMS

AGRICULTURE entails all operations performed on a "farm" in connection with planting, growing, and harvesting of crops; raising and feeding of livestock and poultry, and management. All operations in connection with preparation of farm products for market where the preparation does not alter the form of the product and transportation to the first delivery point. In Hawaii, the first delivery point is defined as the processing plant or packinghouse door or other receivers' establishment for marketings on the island of production. For off-island marketings, the first delivery point is generally the shipper's warehouse.

FARM is a place with estimated (or expected) annual sales of agricultural products of at least $1,000.

CROP PRODUCTION is the estimated amount of crop harvested and transferred at the first delivery point. Production estimates of vegetables and fruits include the quantity for fresh market and processing use.

ACREAGE IN CROP is the total acreage standing in a specific crop regardless of age or condition unless it has been declared abandoned by the operator.

ACREAGE HARVESTED is the total area harvested or partially harvested during the reporting period. A permanent or semi-permanent planting that was harvested for only a portion of the year is counted in its entirety. Acreage lost before maturity due to natural or economic factors is not included. Acreage harvested and planted repeatedly during the year is counted each time.

YIELD is the average production per acre of merchantable quality harvested and sold or utilized. This is derived by dividing total production by harvested acres.

LIVESTOCK OPERATION is defined as a place that has one or more head of the species on hand at any time during the year. It does not have to meet the definition of a farm.

LIVESTOCK PRODUCTION is the estimated amount of livestock and livestock products sold. This includes allowance for amount used on farms where produced.

FARM PRICE is a computed price to value agricultural production which may or may not reflect the average price at which actual transfer of ownership took place but which is comparable with the definition of "agriculture". See "agriculture" for the definition of pricing point.

MARKET SUPPLY includes pounds of product sold in Hawaii to both Armed Forces and civilians (outshipments excluded) plus products shipped in for civilian use. Direct inshipments to the Armed Forces are excluded.

SAMPLING METHODS AND ESTIMATION

The Hawaii Agricultural Statistics Service uses a variety of sampling techniques to produce current agricultural statistics about crops, livestock, prices, farm labor, and other information relating to the agricultural economy.

Data is collected, summarized and estimates are prepared. These estimates then pass through the Agricultural Statistics Board of the U. S. Department of Agriculture where, for major items, Hawaii estimates become part of National totals and enter the official data base for agriculture. National and State estimates are published according to a schedule set one year in advance.

The Hawaii Agricultural Statistics Service conducts many of its surveys by virtually complete **ENUMERATION** of certain parts of the population. This is unusual compared to procedures in other states but is feasible in Hawaii due to the relatively small size of certain categories of the farm universe or the extreme concentration of ownership. Vegetable and poultry surveys are among those where complete enumeration is the usual procedure.

LIST SAMPLING is a common means of data collection. Lists of farm operators are well suited for the low cost collection of information by mail. Supplementary information is included within the frame that allows the use of efficient stratified sample designs. A major disadvantage of this method is the constant change in the list frame which can never be perfect. In Hawaii, cattle and hog surveys are examples of stratified list sample designs.

AREA FRAME SAMPLING can be used alone or in conjunction with the list frame. The frame consists of an aggregation of identifiable units of land or segments which may be sampled. The frame is complete and does not suffer the type of deterioration over time as does a list frame.

MULTIPLE-FRAME SAMPLING is the use of two frames. It takes advantage of the best attributes of the area frame and the list frame, produces unbiased estimates and allows measurement of the sampling error. This survey method is currently used for agricultural employment and wage rate surveys.

OBJECTIVE YIELD SURVEYS provide information from direct counts, measurements and weights of the crop made from small plots in a probability selection of sample fields. Currently, this method is used for forecasting papaya yield four months in advance of harvest. Research is underway to determine the feasibility of using this methodology on other crops.

CHECK DATA is used in addition to producer surveys to establish final production and marketings. These include processor receipts, slaughter, vacuum cooler volume, public tax records, and inspections. Unloads at Honolulu and wholesale prices as reported by the Market News Service, are an important check data source. Also, grower organizations, such as the Hawaiian Sugar Planters' Association, provide an efficient means of obtaining information concerning sugar production.

HAWAII AGRICULTURAL STATISTICS SERVICE

Fact finding for agriculture

REPORTS ISSUED

Title and Description	Release date
CROPS	
AVOCADOS: Annual summary of acreage, yield, production, farm price, and value	May
BANANAS:	
- Monthly report on sales, farm price, and production forecast	Second week of month
- Annual summary of acreage, yield, production, farm price, and value	March
COFFEE:	
- Preliminary season estimates of acreage, yield, production, farm price, and value	January
- Final season estimates of acreage, yield, production, farm price, and value	August
FRUITS: Annual summary of fresh and processed fruit production, acreage, farm price, and value	May
GINGER ROOT: Annual summary of acreage, yield, production, farm price, and value. Planting intentions for next season	July
GUAVAS: Annual summary of acreage, yield, production, farm price, and value	May
MACADAMIA NUTS:	
- Preliminary season estimates of acreage, yield, production, farm price, and value	January
- Final season estimates of acreage, yield, production, farm price, and value	July
PAPAYAS: Monthly data on acreage, utilization, farm price, and four-month production forecast	Mid-month
PINEAPPLES: Annual summary of acreage used, fresh and processed production, fresh and processed farm price, and value	February
SUGARCANE: Estimates of acreage and production for all major U.S. producing areas	August-November
TARO: Annual estimates of acreage in crop, production, and farm prices for Chinese and wetland taro varieties	January
VEGETABLES:	
- Monthly estimates of 15 major vegetable and melon acreage, sales, and farm price. Includes forecast of production and harvested acreage	Second week of month
- Annual summary for all vegetables and melons. Contains data on acreage, production, and value	April
- Annual summary of quantity and farm price for commercially processed daikon and Chinese cabbage	March
FLORICULTURE AND NURSERY PRODUCTS	
ANTHURIUMS: Monthly report of mainland and foreign sales	Mid-month
FLORICULTURE AND NURSERY PRODUCTS: Annual summary of area, production, and value	May
POINSETTIAS: Fall report of plant inventory and past year sales	October
LIVESTOCK	
CATTLE:	
- Annual report of inventory and calf crop as of January 1	February
- Monthly slaughter, farm price, and pasture condition	Second week of month
CHICKENS & EGGS: Monthly report of number of layers, egg production, and farm price	Last week of month
HOGS:	
- Annual report of inventory and pig crop as of December 1	January
- Monthly slaughter and farm price for market hogs	First week of month
HONEY: Annual summary of number of colonies, production, yield, farm price, and value	February
MILK: Monthly data on number of milk cows, price, and production	First week of month
OTHER PUBLICATIONS	
WEEKLY CROP WEATHER: Weekly comments on weather and crop conditions. Rainfall data for selected stations and forecast of Honolulu wholesale unloads for 6 vegetable crops	First working day of week
FARM LABOR: Quarterly report on number of workers by type and average wage rates	Feb., May, Aug., Nov.
STATISTICS OF HAWAIIAN AGRICULTURE: A statistical summary of the State's agricultural sector	September

To order:

Any of the above reports may be obtained by contacting the: Hawaii Agricultural Statistics Service, P.O. Box 22159, Honolulu, HI 96822-0159, (808) 548-7155

EXPLANATION OF GRAPHS AND TABLES ON PAGES 81 AND 87

BEEF-VEAL SUPPLY: Historical beef-veal supply data consists of all Hawaii production, carcass weight basis, foreign imports, converted to carcass weight equivalent and mainland inshipments, weight-as-shipped. Foreign and mainland inshipments of processed beef are excluded. Also, no adjustment is made for changes in inventory. Estimated supplies are derived as a function of U. S. per capita consumption of beef and veal, and Hawaii's de facto population (excludes the Armed Forces). Yearly historical data from 1950-1970 on Hawaii production, U. S. mainland, and foreign inshipments were totaled to serve as the dependent variable with which the supply equation was estimated. The resulting equation indicated Hawaii beef supply with a correlation coefficient of .98.

PORK SUPPLY: All historical and estimated pork supply data involved dressed weight of pork with the exception of mainland inshipments which, at times, includes live hogs shipped into Hawaii for slaughter. Foreign and mainland inshipments of processed pork are excluded. Estimated supplies are derived as a function of U. S. per capita consumption of pork and Hawaii's de facto population (excludes the Armed Forces). Yearly historical data from 1950-1969 on Hawaii production, U. S. mainland, and foreign inshipments were totaled to serve as the dependent variable in estimating a market supply equation. The resulting equation indicated Hawaii pork supply with a correlation coefficient of .90.

CHICKEN-BROILER SUPPLY: All historical chicken-broiler poundage data, as well as estimated supplies, are expressed on a ready-to-cook basis. Estimated supplies are derived as a function of U. S. per capita consumption and Hawaii's de facto population (excludes the Armed Forces). Yearly historical data from 1950-1969 on U. S. mainland inshipments and Hawaii production was totaled to serve as the dependent variable in estimating the supply equation. The resulting equation indicated Hawaii chicken-broiler supply with a correlation coefficient of .99.

Revisions to prior years are made when final figures on population and per capita consumption are available.

PHOTOGRAPHY ACKNOWLEDGEMENTS

Cover photo: Macadamia nuts, photo courtesy of Ruth Smith, Kapulena Orchards.

General summary: Macadamia nut orchard, Ka'u, Island of Hawaii, photo by H. C. Bittenbender, Hawaii Cooperative Extension Service, page 4.

Crop highlights: Dendrobium spray, guava, and fruit basket, courtesy of the Market Development Branch, Hawaii Department of Agriculture, page 14.

Harvesting pineapple at Wahiawa, Oahu, photo by Arthur Osaki, HASS staff, page 15.

Weather summary: Wetland taro and green onion plantings, HASS staff, page 16.

Sugar: Field of sugarcane, Island of Oahu, photo by Arthur Osaki, HASS staff, page 19.

Macadamia nut feature: Macadamia nuts, photo by Ron Heu, Hawaii Department of Agriculture, page 32.

Macadamia nuts, courtesy of Ruth Smith, Kapulena Orchards, page 33.

Macadamia nut orchard, courtesy of Ruth Smith, Kapulena Orchards, page 34.

Livestock summary: Dairy cattle at Haleakala Dairy, Inc., Makawao, Maui, photo by Arthur Oishi, Hawaii Department of Agriculture, page 72.

HAWAII AGRICULTURAL STATISTICS SERVICE
P. O. BOX 22159, Honolulu, HI 96822-0159

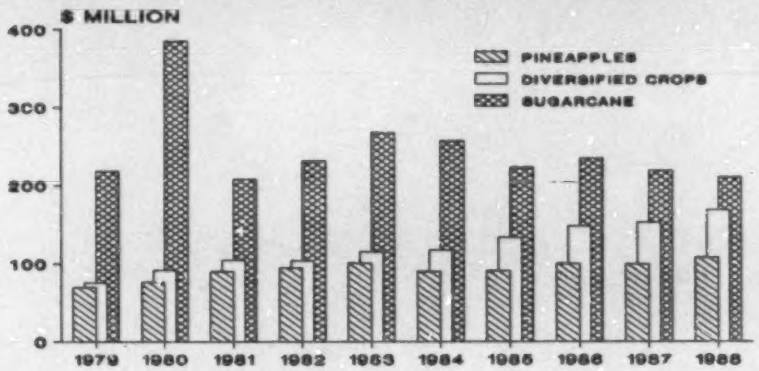
December 4, 1989

ERRATA

STATISTICS OF HAWAIIAN AGRICULTURE 1988

Page 14 - graph: Value of Crop Sales, 1979-88

VALUE OF CROP SALES
STATE OF HAWAII, 1979-88



Page 15 - Table - Top Crops

	Rank 1987	
	From	To
Seed corn	8	7
Coffee	7	8